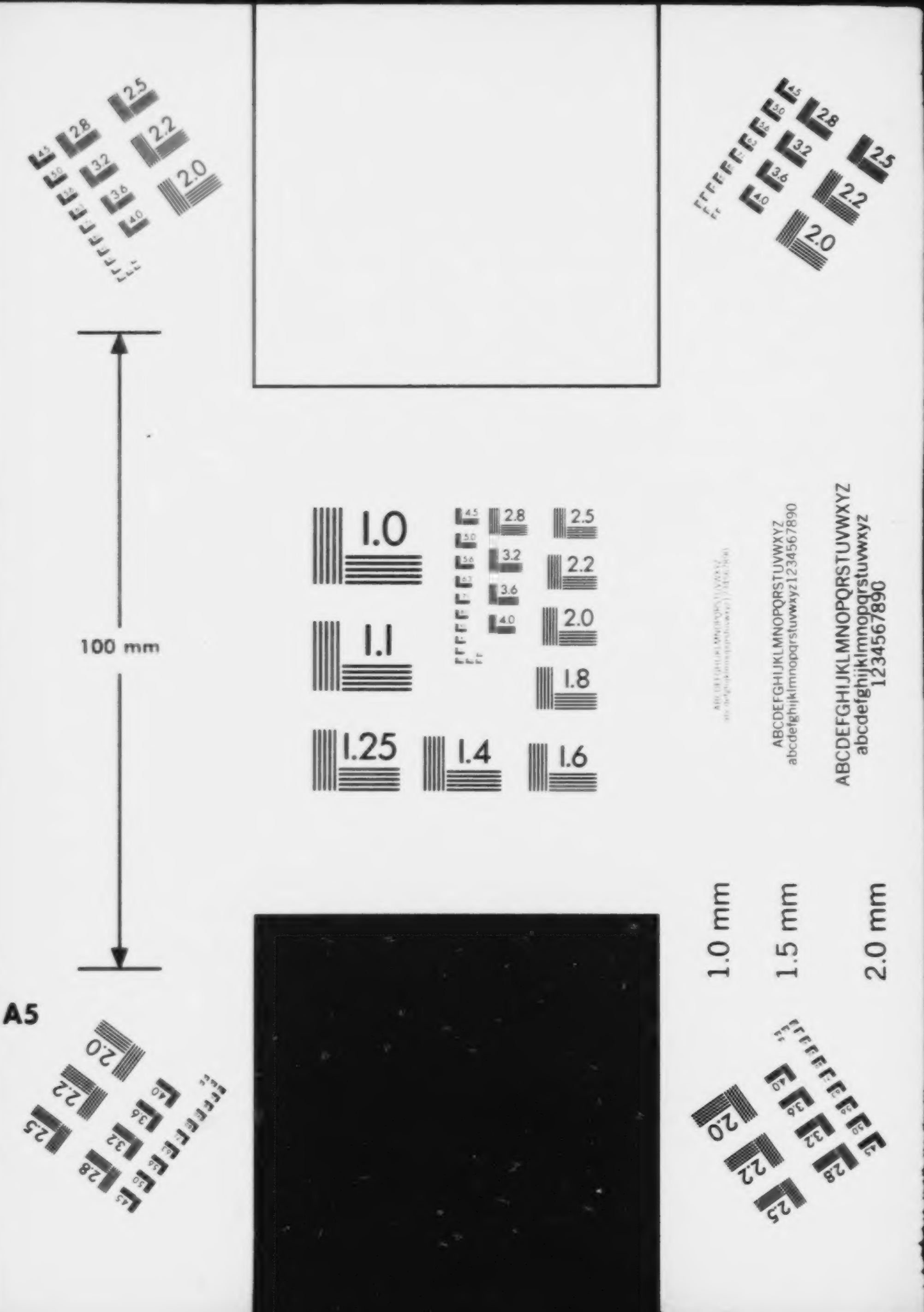
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ABSTRACT

The Indiana Basic Competency Skills Testing and Remediation Program manual states that the purpose of the testing program is to assist Indiana's educators with the implementation of remediation programs, and to assess overall educational programs. Procedures for administering the tests of reading, mathematics, and writing in grades 3 and 6 are provided for administrators, teachers, and other school personnel. The score reports are explained, as is the test development. Chapters on planning and administering the remedial programs are also included. Appendices and tables include grade 3 test items, summaries of score reports, item analyses, class record sheets, scoring guides, remediation claim forms, test design specifications, Indiana House Enrolled Act 1202, details about the test tryout, and characteristics of effective instruction. (GDC)

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PREFACE

In an increasingly technical and information-oriented society, it is essential that students acquire the basic academic skills which are the tools for lifelong learning. The Indiana Basic Competency Skills Testing and Remediation Program has been established to assist schools in identifying students who experience difficulty mastering these critical skills and providing specialized instruction to promote their academic progress. Also, the program is intended to provide Indiana schools with another means of assessing their overall educational programs, in order to promote effective learning by all students.

As is the case with any large-scale effort in its early stages, certain aspects of the testing and remediation program may seem confusing to educators at the local level. This manual has been constructed to assist administrators, teachers and other school personnel in understanding and implementing the various components of this program. In addition, it is hoped that the manual will be a helpful guide for anticipating and resolving problems associated with program implementation.

As the testing and remediation program progresses, this manual will be periodically revised and updated. In order to make the document as useful as possible, it will be important to obtain feedback from its consumers. Local educators are encouraged to recommend changes or additions to the manual which will increase its utility as a resource for conducting a program of the highest quality.

Acknowledgements

The successful preparation of this manual was made possible by the many Department of Education staff members and other professionals who provided significant contributions.

Several staff members were directly responsible for preparing the manual. Floyd Robison served as project editor/coordinator. Principal writers included Linda Bond, Betty Johnson, Jon Jones, Floyd Robison, and William Strange. In addition, Stephen Davis, Sheila Ewing and Rita Shilling wrote revisions to the chapters. Material on remediation program strategies was written by Dr. David Cooper, Reading Programs and Services, Department of Elementary Education, Ball State University and Dr. Becky Nelson, Department of Mathematical Sciences, Ball State University, under contract with the Department of Education.

The efforts of staff reviewers were instrumental in ensuring the accuracy and clarity of the manual's contents. Reviewers were Deborah Beigh, Stephen Davis, Sheila Ewing, Ronald Hartman, and Rita Schilling.

Staff members in the Division of Special Education provided technical assistance on chapters pertaining to the remediation program.

Also, thanks are extended to the members of the Competency Testing and Remediation Program Advisory Council, for reviewing various sections of the manual; to the staff of CTB/McGraw-Hill for their permission to reproduce scoring reports and other copyrighted material; and to the numerous educators at the local level who provided helpful suggestions for constructing the document throughout its development.

Even with the most capable writers and reviewers, the success of any large-scale project depends on the patience and expertise of an effective office manager. This project staff was fortunate to have such a person. Special thanks goes to Mrs. Maxine Dunn, who organized, proofread and typed countless drafts of the manuscript with great skill and good humor.

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CHAPTER I

Overview of the Testing and Remediation Program

1.1 PURPOSE OF THE PROGRAM

1.11 OVERVIEW

The Indiana Basic Competency Skills Testing and Remediation Program will examine a restricted domain in reading, mathematics and writing for Grades 3 and 6 and one other grade to be determined by the State Board of Education. The purpose of the test is to assist Indiana's educators with the implementation of remediation programs. The test will be given to all students in the designated grades during the last week of February each year.

1.12 RATIONALE FOR THE PROGRAM

The State Board decided that the test should include areas reported by the National Assessment of Education Progress (NAEP) in which students were found to be lacking skills. These areas include critical thinking, comprehension, mathematics problem solving, and persuasive writing.

The Indiana Basic Competency Skills test has been designed to supplement testing that is already going on in our schools. Most of the achievement tests used today are norm-referenced; a score indicates how well a student does in comparison to other students in the same grade. The state competency test is criterion-referenced; each score shows how well students have mastered each of a number of learning objectives. This additional criterion information will help schools design remediation programs which address the specific skills found to be lacking for each student. The test will also have norms, derived from representative national and state samples.

1.13 RELATIONSHIP OF THE IBCST TO THE EIP AND OTHER LOCAL ACHIEVEMENT TESTING PROGRAMS

Districts have chosen their local testing programs to fit their curricula, which cover the core subjects (language, mathematics, science, social studies) and beyond. They have chosen achievement tests appropriate for all students, from low achieving to high. Given the limited domain of the statewide competency test, it might not be sufficient in depth and scope to provide the best reflection of a district's program. If, however, a district decides that the competency test does fit their program needs, then the district could use such scores to satisfy the achievement score reporting requirements of EIP for appropriate levels and subjects. Of the three areas--reading, mathematics, and writing--the writing scores may prove, in many instances, to provide better evaluations of writing than current local testing programs.

Overall, the statewide competency testing program was designed to complement and supplement local testing programs and not to supplant them.

1.2 PARTICIPANTS IN THE TESTING PROGRAM

1.21 STUDENTS WHO WILL TAKE THE TEST

All students in the designated grade levels in all Indiana public schools who receive their basic skills instruction from a REGULAR CLASSROOM TEACHER, are expected to take the IBCST. Students who receive their basic skills instruction from a SPECIAL EDUCATION-FUNDED TEACHER may be tested at the discretion of the local school district. However, special education students are not eligible for remediation according to Section 1,c, (2) and (3) of H.E.A. 1202. Thus, these students' test results would be used only to review the appropriateness of their Individual Education Plans.

It is possible that some students may receive instruction in certain basic skills from a regular classroom teacher and receive other basic skills from a special education teacher (for the purposes of this program, BASIC SKILLS are defined as reading, writing and mathematics). The local district may make one of three decisions regarding testing of a student in this situation: a) administer the entire test to the student; b) administer only those portions of the test measuring skills the student receives from a regular classroom teacher; or c) exempt the student from taking the test. Note, however, that the students, would not be eligible for remediation under H.E.A. 1202. Results would be used to evaluate, and possibly revise, these students IEPs.

1.22 CHAPTER 1 STUDENTS

Chapter 1 students will be included in the testing program. Results may prove useful in documenting their need for Chapter 1 services. If these students score below the passing mark set by the State Board of Education then the district will have to decide whether or not to include them in state-funded remediation. See Sections 4.12 and 4.13, for discussions of approaches to remediating Chapter 1 students.

1.23 LIMITED ENGLISH PROFICIENT STUDENTS

Limited English Proficient students will be expected to take the IBCST if they receive their basic skills instruction from a regular classroom teacher. Teachers must take into account that these students often lack English skills found to be important in many academic activities, including taking tests. Remediation plans for these children will need to be individually designed to meet their particular needs.

1.24 STUDENTS IN OTHER SPECIAL PROGRAMS

Consistent with the guidelines described in Section 1.21, students participating in other special programs (e.g., speech and hearing programs, physically handicapped programs) would take the test if they receive basic skills instruction in the regular classroom.

If local district staff are uncertain as to whether a given student in a particular special program should be tested, they may call on the staff of the Department of Education for technical assistance. Also, please see Sections 4.14 and 4.15 for a discussion of considerations in deciding whether or not a student qualifies for remediation.

1.25 STUDENTS IN NON-PUBLIC SCHOOLS

At this time, students enrolled in non-public schools are not included in the testing and remediation program. Also, there is no legislative authority for non-public schools to arrange purchase or loan of the IBCST from the State of Indiana or the test developer. Should future legislative action include non-public schools in the program, further information will be provided by the Department of Education.

1.3 COMMUNICATION AND USE OF TEST RESULTS

1.31 HOW THE TESTS WILL BE USED

The purposes of Indiana's basic competency tests are five-fold:

1. To provide the state a basis for statewide FUNDING of remediation;
2. To provide school corporations a partial basis for SELECTING STUDENTS into the remedial programs;
3. To INFORM those implementing the remedial programs of the areas within which each student needs assistance;
4. To RETEST those in the remedial programs to gain a measure of their improvement;
5. To provide information helpful to school corporations about an ENTIRE GRADE LEVEL'S performance on the objectives.

1.32 COMMUNICATING TEST RESULTS

Each district will receive scoring reports from the contractor within a month of the date the tests are received by the scoring service. In addition to a funding report, referred to above, district offices will receive school, classroom and student reports (see Chapter 3 for descriptions of these reports). The district central office decides how and to whom it will communicate results. Section 1 (i) of H.E.A. 1202 states that the results of the test shall be made available only "to the student and the student's parent or guardian; or when required for use for purposes of this section." The phrase "purposes of this section" is taken to refer to remediation described in Section 1.

CHAPTER II

Administering the Test

2.1 RECEIVING AND STORING TEST MATERIALS

2.11 ARRIVAL OF MATERIALS

Test materials are sent to each corporation central office during the first two weeks of February. The number of tests sent is based on the number of third graders reported to the Department of Education, via Form EIR-1, for the current academic year. Corporations which experience a significant change in third grade enrollment after submitting their EIR-1 should contact the Division of Research and Assessment (317/927-0213) AS SOON AS POSSIBLE PRIOR TO FEBRUARY 1.

2.12 TEST MATERIALS

The following materials are included in the shipments to corporation offices:

TEST BOOKLETS: The number of booklets sent for testing each grade level equals the number of students to be tested plus a five percentage overage. Booklets are packaged in groups of twenty tests.

TEACHER'S MANUALS: Each package of twenty tests includes one teacher's manual. This manual contains instructions for administering the test and completing student data grids.

GROUP INFORMATION FORMS: The shipment includes one group information form for each class tested in the corporation. This machine scannable form is green in color and calls for information concerning school and teacher name, number of students tested in the class and date upon which testing was started by the teacher.

SCHOOL/GROUP LIST: At least one list is included in the shipment. The list is used to report each grade level and class for which completed tests are being returned. This allows the contractor to confirm that all tests intended for return by the corporation were actually included in the return shipment.

RETURN LABELS: One box in the shipment contains a number of postage-paid return labels. When re-packaging completed tests, a label should be affixed to each box in the return shipment.

INSTRUCTIONS FOR RETURNING COMPLETED TESTS: One box in the shipment contains a one-page sheet describing procedures for re-packaging and returning completed tests.

SCANNABLE ANSWER SHEETS (Upper grade levels only): Each package of twenty tests includes twenty answer sheets. Students tested in grades OTHER THAN GRADE THREE must mark their answers on these machine scannable sheets. However, answer sheets will not be included in shipments for Grade Three, as these students mark their answers directly in their test booklets.

2.13 STORAGE OF TEST MATERIALS

Prior to the testing dates, all test materials should be stored in a manner and location which ensures their security. The Department of Education depends heavily on school corporations to maintain the security of test materials throughout the testing process, as is the case for other standardized tests.

2.2 SUGGESTED TESTING SCHEDULES

2.21 ANNUAL TEST DATES

The IBCST is designed for administration during the last week in February each year. Ideally, the test would be given over three consecutive mornings, according to the schedule below:

Reading Vocabulary and Comprehension: Morning 1
Mathematics: Morning 2
Writing: Morning 3
Make-up: Morning 4

2.22 ALTERNATE TEST DATES

Certain situations may prevent test administration during the last week of February. In such situations, the test may be given during the third week in February. Testing after March 1 creates several logistical problems in obtaining statewide results and should be avoided.

2.23 TESTING SESSIONS

The IBCST is designed to be given in seven sessions over the three day testing period. These sessions are broken down in Table 2-1 and Table 2-2.

Insert Table 2-1
About here

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2.3 ADMINISTERING THE TEST

2.31 TESTING CONDITIONS

The State Board of Education recommends that the designated district test person assume overall responsibility for administering the test as well as collecting and mailing answer documents in a timely mannner. The State Board of Education further recommends that all such tests be given by the classroom teacher in the classroom to his or her students, according to uniform procedures outlined in the teacher's test manual. The State Board of Education recommends against administering these tests in large groups collected in auditoriums, lunchrooms, or gymnasiums.

2.32 TESTING PROCEDURES

Testing procedures are described in the TEACHER'S MANUAL. The instructions for each subtest have been carefully developed to promote uniform understanding by students. It is essential that teachers precisely follow all testing procedures and read all instructions exactly as they are described in the manual.

Suggestions for administering the test are provided in Appendix A. Any questions concerning testing procedures may be directed to the Division of Research and Assessment, Indiana Department of Education.

2.4 RETURNING COMPLETED TESTS

2.41 RETURN SHIPPING

Completed tests should be returned to the contractor, CTB/McGraw-Hill, where they will be scored. The cost of returning tests will be assumed by the contractor. Unused test materials should be retained by corporations for future use.

2.42 DEADLINE FOR RETURNING COMPLETED TESTS

It is important to note that statewide test results cannot be computed until all school corporations have returned completed tests. For this reason, tests must be placed in shipment to the contractor no later than March 6 of each year.

2.43 MAKE-UP DATES

The statewide funding report includes only those students completing all sections of the test. Corporations are asked to provide a make-up testing day for students who were absent during one or both of the scheduled test days. However, make-up testing should not delay the return of completed tests beyond March 6 of each year.

CHAPTER III

Scoring Reports

3.1 OVERVIEW OF SCORE REPORTS

3.11 RECEIPT OF REPORTS BY CORPORATIONS

During the first two weeks of April, the contractor will mail scoring reports to school corporation central offices. These reports will provide both norm-referenced and criterion-referenced information on performances by student, class, school, district, and state. Also a funding report will be provided to assist corporations in claiming remediation funds.

3.12 TYPES OF REPORTS

Table 3-1 lists the various types of score reports, along with a brief description of each report and its recipient.

Insert Table 3-1
About Here

3.2 DESCRIPTION OF SCORING REPORTS

3.21 INDIVIDUAL SCORE REPORT

Two copies of an Individual Score Report will be produced for each student taking the test. One copy is intended for use by teachers, while the other copy may be given to parents or retained in students' files.

Table 3-2 illustrates the report. Significant features are described below and referenced to Table 3-2:

Insert Table 3-2
About Here

(A) Identifies the student for whom the report is intended, along with the student's grade level, teacher, school and district.

(B) Indicates responses to the "special codes" (i.e., Chapter 1, Special Education) and student identification. These codes are located on the cover of the test booklet (third grade) or on the answer sheets (other grades). Using the code in Table 3-2 as an illustration, the various digits are interpreted as follows:

FIRST DIGIT: Indicates whether or not the student was reported to be enrolled in a Chapter 1 program. A "o" in this place indicates that student is in Chapter 1; a "1" indicates that the student is not in Chapter 1.

SECOND DIGIT: Indicates whether or not the student was reported to be enrolled in a special education program. A "o" here indicates that the student is in special education, while a "1" indicates no participation in special education program.

THIRD THROUGH SIXTH DIGITS: Indicates the identification number assigned to the student. This number should be retained in the student's record for future reference.

(C) Identifies the subtest (reading, mathematics, writing) for which scores are reported.

(D) Identifies each objective measured in the subtest.

(E) Number of correct answers on each objective, subtest and test as a whole.

(F) Percentage of correct answers on each objective, subtest and test as a whole.

(G) For the 1985 testing, this column will be blank. If the State Board of Education establishes statewide mastery criteria on the objectives, the column will report those criteria as proportions (e.g. 3/5, 4/5).

(H) This column will be blank in 1985. If mastery criteria have been established by the State Board of Education, the column will indicate if the student achieved mastery on each objective. Mastery will be indicated by the symbol '+' beside the mastered objective. Non-mastery of an objective will be indicated by the symbol '-'.

(J) Provided for the teacher to insert prescriptive/diagnostic notes or to indicate if the student has achieved criterion performance levels established by the school corporation.

(K) Reports the number and percentage-of-total-items answered correctly on each subtest.

(L) Reports the student's overall test performance, in terms of number and percent of items answered correctly. If the State Board of Education has established mastery criteria in 1986, this entry will report the total number of objectives mastered. Note that the total number of correct answers reported here serves as the student's composite test score, used to determine if the student has exceeded the statewide cutoff score for remediation.

3.22 PERFORMANCE ANALYSIS REPORT BY CLASS (PARC)

This report summarizes performances by all students in a class on each objective and subtest, along with the entire test. The PARC is illustrated in Table 3-3. Significant features referenced on this report are described below:

Insert Table 3-3
About Here

(A) Identifies teacher, school and district names. Also indicates grade level and number of students tested;

(B) Columns describe performance of each student. The number of correct answers a given student obtains on each objective, subtest or total test is found by reading down that student's column;

(C) Indicates the subtest (Reading, Writing, Mathematics) for which scores are reported;

(D) Lists each objective measured by the subtest;

(E) Indicates the number of correct answers on each objective;

(F) Indicates the number and percent of correct answers on each subtest;

(G) Indicates the overall number and percent of correct answers on the total test. These are students' composite scores, used to determinne eligibility for remediation.

3.23 PERFORMANCE ANALYSIS REPORT: SCHOOL SUMMARY

This report summarizes test results by classes within a school and provides an overall picture of the school's performance. The report is useful for analyzing school-wide strengths and weaknesses on the performance objectives and determining needs for curriculum changes. Significant features of this report, referenced to Table 3-4, are described below:

Insert Table 3-4
About Here

(A) Identification information, including school and district names, grade level, and test date;

(B) Names of subtests.

(C) Performance objectives measured by subtests.

(D) Number of items measuring each objective.

(E) Average number of items answered correctly on each objective and subtest by students in each class and the entire school.

(F) Average number and percent of items answered correctly on each subtest.

(G) Average number and percent of items answered correctly on the overall test.

3.24 PERFORMANCE ANALYSIS REPORT: DISTRICT SUMMARY

The district summary provides test results by each school within the corporation and summarizes overall corporation results. The report is structured in the same manner as the school summary and provides average scores on objectives and subtests, by school and corporation. The report is illustrated in Table 3-5.

Insert Table 3-5
About Here

3.25 CLASS, SCHOOL AND DISTRICT ITEM ANALYSIS REPORTS

Item analysis reports will be provided for each class and school in the corporation, as well as the corporation as a whole. These reports are designed to help teachers, principals and other corporation personnel examine patterns of answers to the test questions. Item analyses are useful for: a) determining percentages of students correctly answering questions; b) analyzing types of errors made on particular questions; and c) determining percentages of students skipping various questions.

A Class Item Analysis Report is illustrated in Table 3-6. Significant features of the report are described below:

Insert Table 3-6
About Here

(A) Identification information;

(B) Performance objectives;

(C) Items measuring each objective, listed by item numbers;

(D) Percent of students answering items correctly;

(E) The letters of the correct responses to items;

(F) Percent of students omitting questions;

(G) Percent of students choosing each option on the items. The percent of students choosing the correct response on an item is noted by the symbol, '*'.

3.26 STATEWIDE AND DISTRICT FREQUENCY DISTRIBUTIONS/DISTRICT FUNDING REPORT

This report provides frequency distributions of subtest and composite test scores for the state and corporation. Also reported are statewide and local percentile ranks, summary test statistics and number of students in the corporation obtaining composite test scores below the state cutoff. Corporations may utilize this information in preparing claims for remediation funds.

This report is illustrated in Table 3-7, with significant features described below:

Insert Table 3-7
About Here

(A) Identifies district for which the report is prepared, along with the grade level and number of students tested. This section also indicates which form of the test (A or B) was used.

(B) The left side of the report provides statewide results for the composite test, and reading, mathematics and writing subtests (writing results will be included in 1986).

(C) Lists raw scores obtained statewide on the test or subtests.

(D) Lists number of students obtaining each raw score.

(E) Lists percent of all students in the state obtaining a raw score.

(F) Lists percent of students in the state obtaining scores up to and including a given raw score.

(G) List percentile ranks associated with raw scores. Statewide percentiles are based on the state distribution of scores, while the district percentiles are based only on the district's score distribution.

(H) The right side of the form provides the recipient school corporation's results on the composite test, as well as the reading, mathematics and writing subtests (writing results will be included in 1986).

(I) Summary statistics for the test are reported for the state (left side) and district (right side). Statistics include:

1. N-COUNT: Number of students tested;
2. SPECIAL EDUCATION: Number of special education students who took all or a portion of the test, but who are not included in the score distributions;
3. OMITS: Number of students who did not complete all sections of the test, and are not included in the score distribution;
4. FREQUENCY N: Number of students included in the score distribution;
5. MEAN: Average score on the test or subtest;

6. SD: Standard deviation;
7. SEM: Standard error of measure. This statistic provides an index of the reliability of an individual student's scores. That is, if a given student took the test 100 times, 68 percent of her scores would fall within 1 SEM above or below her obtained score. The SEM reported for the state may be used with district scores.

(J,K) FUNDING INFORMATION: These entries provide information needed to complete the form for claiming remedial funds. On the left side of the report, Entry (J) indicates the state cutoff score for determining eligibility for remediation, and the number of students in the state who obtained scores below the cutoff. This information is provided for comparison purposes only.

Entry (K) provides the same information based on the school corporation's result. The entry indicates the cutoff score and the number of students in the corporation who scored below the cutoff. THUS, THE NUMBER OF CORPORATION STUDENTS SCORING BELOW THE CUTOFF CONSTITUTES THE NUMBER OF STUDENTS FOR WHOM REMEDIATION FUNDS MAY BE CLAIMED.

3.27 NATIONAL NORM-REFERENCED RESULTS: THE CLASS RECORD SHEET

The Class Record Sheet provides test performance on each student in a class, referenced against the performance of a representative national norm group. Results are described separately for each subtest as well as the composite test. Thus, while previously described reports utilize students' raw score, the CRS provides STANDARD scores on each student. Scores reported include: a) grade equivalent (GE) scores; b) national percentile ranks associated with the standard scores; c) national stanines; and d) normal curve equivalent scores. Significant features of the report, illustrated in Table 3-8, are described below:

Insert Table 3-8
About Here

(A) Identification information;

(B) Alphabetical listing of students' names;

(C) Form of the test (A or B) used to test students;

(D) Types of scores included on the report to the right of the initials. These include:

GE: Grade Equivalent Score
NCE: Normal Curve Equivalent
NP: National Percentile Rank
NS: National Stanine

(E) Scores are reported for each subtest and the composite test;

3.28 WRITING SAMPLE SCORING REPORT

Students' writing samples will be returned to their teachers with two scores ranging from 0 (unscoreable) to 4 (exemplary). One score will be obtained holistically, the other by primary trait scoring. A narrative description of the score will also be included. These scores will be weighted and combined with the reading, mathematics and writing mechanics test scores in order to obtain a composite score. This composite score will be used for remediation funding purposes. Please refer to Appendix B for a sample scoring guide.

CHAPTER IV

Administrative Aspects of the Statewide Remedial Program

4.1 SELECTING STUDENTS FOR REMEDIATION

4.11 STUDENTS OBTAINING TEST SCORES BELOW STATE CUTOFF

Each year, the State Board of Education will identify a cutoff composite score. In each corporation, students who obtain composite scores below the cutoff will be eligible for remediation.

The cutoff score and the amount of funds per student available for remediation will be communicated to corporations soon after the State Board of Education receives statewide test results.

4.12 STUDENTS SELECTED FOR REMEDIATION VIA THE SUBSTITUTION OPTION

It is possible that a student scoring below the state cutoff already receives appropriate remediation under another program (e.g., Chapter 1), or is not considered in need of remediation on the basis of past work or teacher judgement. In such cases, the school corporation has the option of substituting another student for placement in the program. Students may be substituted on the basis of classroom performance or teacher observation, even though their composite scores may be greater than the state cutoff score.

The substitution option allows school corporations considerable flexibility in deciding which students would derive greatest benefits from the remedial program. However, selection of students for remediation under the provisions of H.E.A. 1202 must be guided by the following criteria:

a) The total number of students selected for remediation must not exceed the number of students originally obtaining scores below the state cutoff. This means that if a student is placed into the program on a basis other than test score, another student with a substandard score must be removed, when claiming remediation funds.

b) All students selected for remediation must have received their basic skills instruction from regular classroom teachers at the time they were tested. Students receiving basic skills instruction from special education teachers are ineligible to participate in the remedial program.

c) As part of their claims for funds, school corporations must submit descriptions of procedures used to select students for remediation. This procedure is described in Section 4.21.

4.13 SELECTION OF CHAPTER 1 STUDENTS

Since many students enrolled in Chapter 1 programs are eligible to take the test, they also are eligible for remediation under the provisions of H.E.A. 1202. However, the school corporation may decide that their Chapter 1 program satisfies these students' needs and that their participation in the state-funded program constitutes a duplication of services. The school corporation may consider the substitution option (see Section 4.12) to select other students for the remedial program in place of the Chapter 1 students when appropriate.

4.14 PROGRAM ELIGIBILITY TEST

Certain circumstances may arise in which it is difficult to determine whether or not a student is eligible to participate in the testing and remedial program. If a question exists as to eligibility of a given student, the following eligibility test may aid corporation staff members in arriving at a decision.

At the time the competency test is to be given:

	YES	NO
QUESTION 1: Does the student receive SOME or ALL of his/her instruction in reading from a REGULAR CLASSROOM TEACHER?	____	____
QUESTION 2: Does the student receive SOME or ALL of his/her instruction in mathematics from a REGULAR CLASSROOM TEACHER?	____	____
QUESTION 3: Does the student receive SOME or ALL of his/her instruction in writing from a REGULAR CLASSROOM TEACHER?	____	____

ANSWER QUESTION 4 ONLY IF THE ANSWER TO ANY OF THE ABOVE QUESTIONS IS "NO."

QUESTION 4: If the student does not receive instruction in one or more of the above skill areas from a regular classroom teacher then are they provided by a SPECIAL EDUCATION FUNDED TEACHER?	____	____

If the answers to Question One, Two and Three are "YES," then the student is is eligible to participate fully in the testing and remediation aspects of the program.

If the answer to Question One, Two or Three is "NO," and the answer to Question 4 is also "NO," then the student is eligible to participate fully in the program.

If the answer to Question One, Two or Three is "NO" and the answer to Question 4 is "YES," then the student may take the test, but is not eligible to receive remediation under the state-funded program.

4.15 TREATMENT OF STUDENTS RECEIVING BOTH REGULAR CLASSROOM AND SPECIAL EDUCATION INSTRUCTION

A student who receives instruction in one or more basic skill areas from both a regular classroom teacher and a special education teacher would be ELIGIBLE to take the test and receive remediation, according to the eligibility test. However, eligibility in this case does not necessarily mean that program participation is in the best interest of every student receiving dual services. Local school corporations must assume the responsibility for deciding if participation in the remediation program would be in the student's best educational interest. This decision should involve the student's regular classroom teachers, special education teacher, principal, guidance counselor, school psychologist and other resource personnel having knowledge of the student's academic progress. Equally important, the decision must involve the student's parents or guardians.

If such a collaborative decision-making process concludes that the student's educational interest would be better served by not including him/her in the remedial program, then the school corporation must plan and implement an appropriate alternative instructional strategy. While several options may be developed, three strategies are presented below as examples:

a) Administer the competency test, indicating that the student is a special education enrollee (by marking "YES" in the SPECIAL EDUCATION column on the test booklet cover). Accordingly, exempt the student from remediation as a special education enrollee. Use test results to evaluate, and possibly revise, the student's IEP.

b) Administer the competency test, indicating that the student is not a special education enrollee (by marking "NO" in the SPECIAL EDUCATION column on the test booklet cover). Exempt the student from the remediation program via the substitution option. Record the reasons for substitution in the student's permanent record. NOTE THAT REASONS CITED FOR SUBSTITUTION MUST BE CONSISTENT WITH THE CORPORATION'S CRITERIA FOR SELECTING STUDENTS INTO THE REMEDIATION PROGRAM. Use test results to evaluate and modify the student's IEP.

c) Exempt the student from taking those portions of the test which, in the corporation's judgment, will not provide accurate or useful information about the student's needs. Exempt the student from the remediation program as a special education or substituted student. Describe the rationale for this decision in the student's permanent record. Use results of those portions of the test which were administered for planning appropriate instructional programs.

4.2 APPLICATION FOR REMEDIATION FUNDS AND USE OF FUNDS

4.21 APPLICATION FOR REMEDIATION FUNDS

As soon as corporations receive the funding report from the scoring service, district test persons will know the numbers of students scoring below the state cutoff score. This information will enable the school treasurer to complete the front of the claim-for-funds report. On the reverse side, the district test person will need to provide a brief description of the corporation's plans for spending the remediation funds, as well as other information called for by the form. The local superintendent's authorization in Section III of the claim form applies to the claim for funds, the remedial program description and, if needed, a waiver for a fall program. This claim form is illustrated in Appendix C.

The State Board of Education's approval in Section IV applies to the claim for funds, the remedial program description and, if necessary, the waiver request for a fall program.

4.22 USES OF REMEDIATION FUNDS

Clearly, remediation funds must be spent to defray costs of remediation described in H.E.A. 1202. Indeed, Section 1 (h) requires the local superintendent to certify in writing before October 1 of each year that "funds (received under this section) have been used for purposes provided in this section."

The appropriation to support the competency testing and remediation program was based on the amount needed to reimburse average-paid professional teachers to work with 10 students per hour for one semester. If a district has met, or made a bona fide attempt to meet, this standard and has funds remaining that are insufficient to hire another teacher, then such funds may be used to pay for other associated costs, including supplies and equipment.

4.23 TRANSPORTATION COSTS

Remediation funds may not be used to provide transportation for students in the program. Even if program funds remain after a teacher has been hired, the extra funds may not be applied to transportation costs. If a school corporation needs to transport a number of students to a summer program, but cannot afford to provide that transportation, then the corporation should apply for a waiver to conduct a fall remediation program.

A situation might arise in which only a few students selected for summer remediation may have transportation problems. In this situation, the corporation might select the following strategies:

a) Provide a summer program to the majority of students and a fall program to the remaining students unable to attend in the summer.

b) Provide a fall program for all eligible students.

4.24 CORPORATION ALTERNATIVES WHEN REMEDIATION FUNDS ARE INSUFFICIENT TO HIRE A TEACHER

The legislature's appropriation for remediation was intended to pay for a professional teacher to work with 10 students per hour in cooperation with the regular classroom teacher.

A district whose third graders' average performance matched the state as a whole, i.e., with 15 percent of the third grade scoring below the state standard, would need a third grade enrollment of nearly 290 in order that 15 percent of them would generate about $10,000 -- the average salary of a teacher for one semester. What, then, is a district to do with amounts less than $10,000? The Board of Education recommends these options for local district consideration:

1. Combine funds with neighbor districts for joint projects.

2. Combine with other program funds that support like programs. Keep records in sufficient detail to account for children served and types of remedial services provided by the additional funds.

3. Combine with summer school funds. In this case, the amount claimed for the remediation program must be subtracted from the summer school reimbursement claim.

4.3 ADMINISTRATION OF LOCAL REMEDIAL PROGRAMS

4.31 WHEN REMEDIATION MAY TAKE PLACE

Remediation programs will be provided in a summer school program of at least four weeks. The State Board of Education strongly prefers that these programs be offered in the summer. However, if a summer program is not feasible, the State Board, upon request of a school corporation, may approve the substitution of an equivalent remediation program to be provided during the subsequent fall semester. At the end of the remedial program, each participant will be retested using an equivalent form of the Basic Competency Skills Test. Beyond these observations, the State Board of Education prefers not to recommend the number of weeks, days per week, or hours per day for summer school or fall semester. Rather, it leaves these matters at the local district level, where such decisions are best made in light of local conditions and resources.

Whether remediation is carried out in the summer or fall, the student's regular classroom activities are the most important aspect of his or her education. If a student is to receive appropriate remedial instruction, results from the statewide competency test plus additional diagnostic measures, such as informal reading inventories, regular classroom teacher comments and checklists should be collected and forwarded to the summer school remedial teacher. This information forms a basis for planning appropriate remedial activities on a student-by-student basis. At the end of the summer instruction, the remedial teacher should prepare a report of each student's progress and forward the report to the regular classroom teacher who will have the student in the fall. This emphasis on communication with the regular classroom teacher focuses continued responsibility for the education of a student on the regular classroom teacher.

4.32 RETESTING STUDENTS UPON PROGRAM COMPLETION

At the completion of summer and fall remediation programs, students should be retested. Retesting will be done with the alternate form of the IBCST, which should be administered as soon as possible after the final remedial contacts with students.

Tests will be ordered by the state for each corporation, based on the number of students reported on the corporation's claim form. Corporations will receive the needed tests by August of each year.

4.33 RETURN OF RETEST RESULTS

Retest results will arrive in corporation central offices within thirty days after completed tests are mailed to the contractor. Results will include individual score reports, summary reports for all students in the program and an item analysis/summary statistics report based on group results.

4.34 USE OF RETEST RESULTS IN PROMOTION DECISIONS

The school corporation staff will make the final decision about advancement to the next grade. For students in summer remediation, staff will base this decision on the following considerations: a) the results of the student's retest; b) attendance in the remedial program; c) the student's teacher in the remediation program; and d) the recommendation of the student's regular classroom teacher.

4.35 IN-CLASS VERSUS PULL-OUT REMEDIATION PROGRAMS

As a general rule, it can be argued that where remediation occurs is not so important as the quality of remediation. However, research findings in studies of ESEA Title I Programs indicate that pull-out programs may be counter-productive. These programs remove pupils from regular classrooms to give them concentrated training. Peterson holds that pull-out programs are "constitutionally dubious, educationally questionable, insupportable by the evidence from most evaluations,...." He acknowledges some benefits from small classes and tutoring, although these benefits come at the expense of other values. Students lose touch with the regular classroom while pulled out. They spend time coming and going and may suffer the stigma of special treatment.

Peterson goes on to cite evaluations of pull-out programs conducted by Cooley and Leinhardt. They found pull-out programs "considerably less efficacious than programs integrated into the regular classroom experience." Glass and Smith concluded "that they are not educationally sound." They found no evidence that pull-out programs improved achievement and plenty of evidence "that the unintended negative side effects of labelling students are large and worrisome."

Peterson argues that pull-out programs are legally suspect, especially in racially mixed schools where a disproportionate share of one or more racial groups may be pulled out.

Perhaps the most compelling argument for in-class remediation is that the regular classroom provides a better opportunity for a more immediate response to students needs. Pull-out is a gross response; whereas in-class is a more fine-tuned response, wherein the regular classroom activity remains as the overriding environment experienced by the student.

If a school district decides that a pull-out program is the most feasible approach to take in providing remediation, then great care should be exercised to ensure that the remedial activity is closely coordinated with regular classroom instruction. Students should not come to feel stagmatized by the physical act of removal from the regular classroom during the remediation activity.

All of this is not necessarily to rule out the use of pull-out programs of remediation. Research findings are not meant to govern program decisions but rather to inform the decision-maker so that he or she can take them into account in arriving at decisions.

Peterson, Paul E., MAKING THE GRADE, pp. 101-105, Twentieth Century Fund, Incl, 1983.

CHAPTER V

Planning Remedial Programs for the Indiana Basic Competency Skills Test

5.1 OVERVIEW

5.11 REQUIREMENTS OF H.E.A. 1202

In accordance with H.E.A. 1202, "The governing body of a school corporation shall develop and implement a program of basic competency skills remediation for students who need remedial work in basic competency skills." In compliance with this law, the Indiana Basic Competency Skills Test was developed to examine a restricted domain in reading, writing and mathematics. This test was designed to assess students' basic skills in the following areas:

* READING - meaning vocabulary, literal comprehension, inferential comprehension, and critical reading/thinking;

* MATHEMATICS - concepts, computation, and problem-solving and application;

* WRITING - overall writing ability through a direct assessment of writing skills and an indirect assessment of writing subskills, such as grammar, punctuation, spelling and capitalization.

Students who receive composite test scores below the state standard, prescribed by the State Board of Education, are eligible for state-funded remedial programs, sponsored by local school corporations.

Local school corporations are responsible for designing remedial programs which meet the needs of identified students. According to Section 2 of H.E.A. 1202, "Remedial programs...shall be provided in a summer school program of at least four (4) weeks.... However, the State Board of Education, upon request of a school corporation, may approve the substitution of an equivalent program of remediation that will be provided in that school corporation during the fall semester...." In keeping with legislative intent, the State Board of Education perfers that local districts offer remediation in the summer.

5.12 STRUCTURE OF THIS CHAPTER

This chapter provides general information and guidance to local school corporations for designing effective remedial programs. It provides information which may be useful for school administrators, directors of testing and remedial programs and teachers of remedial students for designing programs which meet the needs of students, satisfy the requirements of the law, and are cost effective/affordable. Specifically, this report provides the following information about remedial programs:

- COMPONENTS
- ALTERNATIVE MODELS
- CHARACTERISTICS
- PLANNING PROCESS

5.2 COMPONENTS OF REMEDIAL PROGRAMS

5.21 SUMMARY OF PROGRAM COMPONENTS

A remedial program is one which determines each student's knowledge deficiencies and provides instruction designed to assist students in overcoming the identified deficiencies. A remedial program includes three basic components: identification, diagnosis, and instruction.

5.22 IDENTIFICATION COMPONENT

The identification component of the remedial program will be the Indiana Basic Competency Skills Test developed for reading, writing and mathematics. The minimum acceptable scores determined for the Indiana Basic Competency Skills Test will be used for the initial designation of students who need remediation. If a student in this group already receives remedial help under another program or is not considered to require remedial help on the basis of past school work, another student may be selected for the remedial program. The selection of the replacement student is left to the discretion of the local school corporation. Whether a school corporation uses additional testing, classroom performance and/or teacher nomination, it is recommended that the selection procedure be as systematic as possible to ensure that all students needing help have equal and fair access to the remedial program.

5.23 DIAGNOSTIC COMPONENT

The Indiana Basic Competency Skills Test will provide individual profiles of student performance in specific skill areas covered by the test. Thus, the identification component also will yield some initial diagnostic information. School corporations will want to use additional diagnostic procedures to determine specific deficiencies and to assess knowledge and skills unique to their curriculum.

5.24 INSTRUCTIONAL COMPONENT

The instructional component of the remedial program will include the appropriate teaching activities developed by school corporations to help students overcome their deficiencies. The skill areas to be covered by the remedial program will include the areas measured by the Indiana Basic Competency Skills Test and any additional competencies that are based on the local school corporation's existing programs. The method in which the remediation will be provided will vary according to the resources of the local school corporation. Several alternative models of remedial programs follow.

5.3 ALTERNATIVE MODELS FOR REMEDIAL PROGRAMS

5.31 CONDITIONS AFFECTING PROGRAM PLANNING

In planning remedial programs, local school corporations have a number of alternative models from which to select. Ideally, each school corporation would receive sufficient funds to hire a full-time professional teacher to be responsible for the remediation of a small group of students that would number no more than ten at a time. Additionally, it is the intent of H.E.A. 1202 and the desire of the State Board of Education that the remediation programs be provided in summer school. In reality, however, the exact design of the program will depend on the existing conditions in the school, including such things as number of students to be served, number of classes, availability of special reading and/or mathematics teachers, availability of ancillary personnel, amount of money allotted for remediation, etc. The design of the program will also depend on whether the program is planned for the summer or fall and whether it is sponsored entirely by one school corporation or jointly by neighboring corporations which combine funds. In deciding on appropriate instructional plans, it is recommended that a designated task group be assigned this responsibility. After considering individual circumstances and conditions, the task group might consider selecting one or a combination of the following summer or fall program options.

5.32 PLAN I - DESIGN A NEW REMEDIAL PROGRAM

New remedial programs can be developed for either summer or fall to help identified students strengthen their skills and overcome their deficiencies. Such programs should be planned around the "Characteristics of Remedial Programs" discussed in the next section and may consist of components from other alternative plans, such as computer-assisted instruction. Such programs should also employ professional teachers when resources permit and should maintain low pupil-teacher ratio. These programs should be closely coordinated with the regular classroom program.

5.33 PLAN II - COMBINE WITH EXISTING SPECIAL AND SUMMER SCHOOL PROGRAMS

Existing special programs, such as Chapter 1, locally funded reading and/or mathematics programs, and summer school can accommodate the new state remedial program described in this publication. In cases where this is done, the host program should meet the needs of the students identified by the state competency test. Also, separate records should account for the additional students served by the additional funds, as well as the type of remediation provided.

5.34 PLAN III - USE AVAILABLE READING, LANGUAGE ARTS, AND MATHEMATICS SPECIALISTS

In schools where reading, language arts and/or mathematics specialists are available these individuals can be given the responsibility of working with the classroom teachers to develop the remedial program for those individuals who need such instruction. If students are taken out of the classroom for remedial instruction during the fall, the external program should parallel and support the classroom instruction.

5.35 PLAN IV - REMEDIATE WITHIN THE REGULAR CLASSROOM WITH THE REGULAR TEACHER

Schools which do not receive sufficient funds to hire a professional teacher for remediation may choose to provide remediation during the fall in the regular classroom with the regular classroom teacher, with additional APPROPRIATE INSTRUCTIONAL MATERIALS. Once students who are in need of remediation have been identified, classes may be reorganized to make it possible for teachers to carry out more effective remedial instruction; for example, the students in need of remediation may be equally distributed across several classrooms to enable them to receive maximum individual attention from the teacher.

5.351 USING TUTORS

A tutorial program using tutors, e.g., college or university students who are studying elementary education, English, mathematics, etc. can be used to assist the regular teacher in implementing the remedial program. The tutorial program should correlate with classroom instruction and be supervised by the classroom teacher. The tutorial program should be viewed as extra instructional support beyond that which is given in the classroom.

5.352 USING AIDES OR VOLUNTEERS

Under this plan all remedial instruction can be carried out within the regular classroom under the direction of the classroom teacher who is supported by aides or volunteers. All initial teaching is provided by the teacher with the aides or volunteers supervising guided practice, independent practice and application activities of skills and processes taught.

5.36 PLAN V - USE COMPUTER-ASSISTED INSTRUCTION

Where sufficient computer resources are available or where funds are available for the purchase of computer resources and APPROPRIATE SOFTWARE is available, computer-assisted instruction may be used to supplement the necessary teaching, practice and application activities to remediate students' deficiencies. An in-classroom approach or computer laboratory approach may be used to carry out instruction. If available software does not provide the necessary teaching, the classroom teacher or special teacher should provide such instruction followed by computer-assisted drill and practice.

5.4 CHARACTERISTICS OF REMEDIAL PROGRAMS

5.41 OVERVIEW

No matter which of the above models or combinations of models are chosen, the instruction provided should contain the characteristics of an effective instructional program.

A successful program has these characteristics, whether the locus is a remedial setting or a regular classroom, and involves the teacher's use of the diagnostic-prescriptive model. Diagnostic-prescriptive teaching means that the teacher assesses the learner's strengths and needs and then attempts to prescribe the best possible activities and materials to help the learner improve in specific skill areas.

The diagnostic-prescriptive process is a definite sequence of steps planned and implemented by the classroom teacher to overcome skill deficiencies. This is inevitable if the teacher constantly reexamines and selects instructional activities to match the needs and progress of the learner. (For a detailed discussion of diagnostic-prescriptive teaching, see Cooper and Worden, 1983; Cheek and Cheek, 1980; and Reisman, 1978.)

According to Cooper (1983) the diagnostic-prescriptive teaching process includes six steps. These steps are the following:

1. GATHER RELEVANT BACKGROUND INFORMATION;
2. HYPOTHESIZE POSSIBLE REASONS FOR A STUDENT'S STRENGTHS AND WEAKNESSES;
3. GENERATE ALTERNATIVE ACTIONS AND MATERIALS;
4. EVALUATE ALTERNATIVES AND SELECT THE ONES BEST SUITED FOR THE STUDENT;
5. TEACH THE SKILLS;
6. EVALUATE RESULTS.

Using the global framework of the diagnostic-prescriptive model, research findings indicate that a succesful instructional/remedial program includes, but is not limited to, the following characteristics:

1. USES ONGOING EVALUATIVE PROCEDURES;
2. SPECIFIES LEARNER OBJECTIVES;

3. PROVIDES APPROPRIATE, SEQUENTIAL INSTRUCTIONAL ACTIVITIES AND MATERIALS;

4. PRESENTS SKILLS IN CONTEXT OF SUBJECT AREA;

5. CORRELATES WITH AND SUPPORTS ONGOING CLASSROOM PROGRAM, I.E., ARTICULATES WITH DEFINED CURRICULUM;

6. MEETS INDIVIDUAL DIFFERENCES.

These six characteristics of an instructional/remedial program will be treated separately in the following sections. Specific applications to reading, writing and mathematics will be included when appropriate.

5.42 USES ONGOING EVALUATIVE PROCEDURES

An effective instructional/remedial program includes the use of both formalized testing procedures and informal measures, consistent with the needs of the learner.

Diagnosis in mathematics may include the use of an interview technique in which the teacher-diagnostician determines the process by which a learner arrives at an answer. Based upon the learner's verbal responses, the teacher is provided with important information for selecting remedial strategies, e.g., response mode from concrete to abstract. (For further information regarding diagnosis in mathematics, consult Uprichard, 1974; Glennon and Wilson, 1972; and Copeland, 1974.)

In reading, such informal diagnostic measures might include administering an informal reading inventory, paper and pencil tests, daily work samples, and systematic teacher observations as a means of determining student need and measuring growth. An effective reading program will utilize both formal and informal diagnostic techniques.

Diagnosis in writing might include observation of the student during the whole process of composing, frequent and systematic conferences with students at different stages of composing, use of composing-aloud protocols and error analysis of the student's writing.

5.43 SPECIFIES LEARNING OBJECTIVES

The instructional program should include a component that identifies and sequences clearly specified objectives which learners are to achieve.

Research (Guthrie, 1976) indicates that successful instructional programs have generally set an expected level of performance, e.g., 80%, for learner objectives. Further, such programs included built-in checks to determine if the learner had mastered the objectives.

5.44 PROVIDES APPROPRIATE INSTRUCTIONAL ACTIVITIES AND MATERIALS

Matching a student with the appropriate difficulty level of activities and materials is another aspect to consider in ensuring successful learning for the child. When students are provided with appropriate instructional materials, effective learning generally follows.

The instructional program must include a component where the teacher teaches or models the concepts, skills or processes as opposed to having students practice what they do not know.

Research evidence indicates that teachers frequently do not model or teach comprehension skills or processes or ask students questions to test them. Therefore, to prevent or correct deficiencies for students, the skills or processes must be taught and modeled for them. Many students have such deficiencies because the needed skills and processes have not been taught.

Thus, students should interact with materials appropriate to their abilities, i.e., learners should be placed in content materials which match their instructional reading levels. For example, use an informal reading inventory to secure that information. Using a standardized reading test to determine a student's placement level for instruction is inappropriate according to Farr (1970). For mathematics and writing, materials and activities appropriate for instruction could be determined by the informal diagnosis described in Section 5.42, above.

5.45 PRESENTS SKILLS IN CONTEXT

In an instructional/remedial program, skills should, as often as possible, be taught, practiced and applied in the context of a particular subject area. Reading and writing are processes, not sums of skills to be mastered in isolation. Isolated skill mastery does not necessarily improve the student's overall reading or writing ability (Haley-James, 1981).

In mathematics, problem-solving and application situations should be systematically used to demonstrate relationships between concepts and computational skills. In such problem-solving situations, Driscoll (1980) suggests two reasons why students should use calculators. First, the learner is more able to concentrate on the problem-solving process, and secondly, he or she is not bogged down by difficulties with computational skills.

5.46 CORRELATES WITH ONGOING CLASSROOM PROGRAM

Regular classroom teachers should be involved in the planning of remedial activities and strategies for their students. Any remediation component should, as much as possible, articulate with the philosophy, instructional activities and materials used in a student's regular classroom program (Guthrie, 1976; Englehardt, 1976; and Reisman, 1978).

5.47 MEETS INDIVIDUAL DIFFERENCES

A teacher in an effective instructional/remedial program should consider certain psychological and social principles. For example, according to Squires (1983) a student's feeling of success is a prerequisite for effective learning. Also, Reisman (1978) indicates that the research is inconclusive as to whether failure in a subject area is the cause or the effect of student's emotional problems. Peterson, (1983) discusses the stigma often attached to those students who require special treatment.

Alternative modes and methods of teaching also provide opportunities for meeting individual student needs. In helping the student develop reading or writing skills, for example, the teacher should model such skills (Durkin, 1978).

The instructional program should include an in-service component, if at all possible, to insure that all teachers and ancillary personnel have current, up-to-date knowledge about the teaching of reading, writing, and mathematics. An important part in helping students overcome their deficiencies depends on helping teachers identify appropriate instructional strategies to utilize with their students.

5.5 PROCESS OF DESIGNING REMEDIAL PROGRAMS

The following steps are recommended for planning, organizing and implementing remedial programs.

5.51 STEP I - DEFINE THE SKILLS OR TASKS THAT WILL BE TAUGHT

For each of the areas tested by the Indiana Basic Competency Skills Test, list the skills or tasks that will be taught. This listing should be based on the school's existing reading, writing and mathematics program philosophy and design.

5.52 STEP II - IDENTIFY THE STUDENTS TO BE SERVED

Using the results of the Indiana Basic Competency Skills Test, identify the students who have not achieved the minimum acceptable scores along with the specific skill areas where instruction is needed for each.

5.53 STEP III - COMPUTE AVAILABLE DOLLARS TO BE RECEIVED TO SUPPLEMENT THE EXISTING PROGRAM

The amount of additional dollars available to a school corporation for remediation will be based on the number of students below minimum level multiplied by the per student dollar amount. Exact per student dollar amount will not be known until testing is completed.

5.54 STEP IV - STATE THE OBJECTIVES OF THE PROGRAM

Based on skill and concept needs identified in Step II, state the objectives of the program.

5.55 STEP V - DETERMINE BASIC DESIGN FOR THE INSTRUCTIONAL COMPONENT OF THE REMEDIAL PROGRAM

Indicate the type of design that will be used for the instructional component of the remedial program. (See Model Remedial Program Plans.) Specify teachers and other personnel to be involved, size of groups and the amount of time for instruction. This information also is required for the completion of the claim form for reimbursement.

5.56 STEP VI - IDENTIFY THE DIAGNOSTIC PROCEDURES THAT WILL BE USED FOR THE PROGRAM

Based on the content delineated in Step I, identify the tests and other diagnostic procedures that will be utilized to determine the specific needs of individual students. A plan for keeping records of students' progress should be included.

5.57 STEP VII - IDENTIFY PERSONNEL NEEDS

Based on the instructional design, determine the personnel to be involved in the program. Identify teachers and ancillary personnel.

5.58 STEP VIII - DEVELOP IN-SERVICE COMPONENT

Identify in-service plans to update teachers, administrators and ancillary personnel involved in the remedial program.

5.59 STEP IX - IDENTIFY INSTRUCTIONAL MATERIALS NEEDED

Specify instructional materials that will be utilized in the program, including computer software. Show how those materials reinforce and support existing instructional materials.

5.510 STEP X - DEVELOP AN EVALUATION PLAN

Utilizing the objectives stated in Step IV, indicate how the program will be evaluated. While there can be various approaches by which to do this, it is crucial that the approach adopted should measure the progress which the students attain on the objectives. One component of the evaluation plan will be the results of the retest of the Indiana Basic Competency Skills Test.

5.6 SUMMARY DISCUSSION

This chapter provides an overview of remedial instruction models and their characteristics. It advances a diagnostic/prescriptive approach to teaching the basic skills of reading, writing, and problem-solving. Whether we speak of remediation or regular classroom instruction, the discussion comes down to this - good teaching is good teaching and most often is characterized by the procedures described in this chapter. Whatever the setting, good teaching calls for the best that is in us -- the systematic application of our energy, intellect, and resources for the greater good of students in our charge.

For additional information on the characteristics of effective instructional/remedial programs, refer to Appendix D.

CHAPTER VI

Development of the Competency Test

6.1 RATIONALE FOR TEST

6.11 H.E.A 1202

During its regular session of 1984, the Indiana General Assembly passed House Enrolled Act 1202. The Act called upon local school corporations to implement a program of remediation for students who fail to master basic competency skills and provides funds to conduct remedial programs. The State Board of Education was given the task of prescribing a uniform test to assess competence, select grade levels to be tested and establish guidelines and funding levels for remedial programs. Also, the Act specified procedures for selecting students into the remedial program as well as claiming and using remediation funds.

H.E.A. 1202 served as the foundation for constructing and implementing the test. The text of the Act is presented in Appendix E.

6.12 STATE BOARD OF EDUCATION SPECIFICATIONS

On March 14, 1984, the Indiana Commission on General Education (now the State Board of Education) adopted a policy on competency testing, which designated general content areas to be covered by a uniform test:

a) the content of the test will reflect results of the National Assessment of Educational Progress. NAEP found that students tend to lack critical thinking skills in mathematics problem-solving, inferential reading comprehension and writing, particularly persuasive writing.

b) the content of the test will reflect a limited domain of learning in exit-type basic skills. The interpretation of the term "basic skills" included higher-order, critical thinking skills.

6.13 FIELD INPUT ON TEST CONTENT

Prior to constructing the test, the Department of Education formed the IBCST Advisory Council, composed of teachers, administrators and other specialists from public school corporations throughout the state. In a series of meetings, this council produced recommendations on features and content of the test and reviewed the test at various stages of its development.

In addition, other groups of educators at the local level were assembled to provide input on types of skill areas and items appropriate for the test.

6.2 TEST CONSTRUCTION

6.21 SELECTION OF CONTRACTOR TO CONSTRUCT TEST

During the spring of 1984, the Department of Education disseminated a Request for Proposals to interested bidders, for development and implementation of a test and related scoring services. Appendix C of the RFP outlined the range of content to be measured and specified the desired psychometric features of the test. These specifications are provided in Appendix F of this manual.

CTB/McGraw-Hill, a nationally known test publisher, was awarded the initial contract for test development and implementation. CTB/McGraw-Hill will provide test instruments and scoring services for the state testing program.

Throughout the test construction period, successive drafts of the test were submitted by the contractor to the Department of Education for approval of content and design. The Department, in turn, presented these drafts to the statewide Advisory Council for review and suggestions on changes to enable the test to most effectively meet state specifications.

6.22 FINAL APPROVAL OF TEST FOR TRYOUT

The final draft of the test instrument which had been developed by the contractor was reviewed by the Department of Education and Advisory Council. Upon approval of the test instrument by the State Board, the test was subjected to tryout in several selected Indiana school corporations.

6.3 TRYOUT OF GRADE 3 TEST

6.31 TRYOUT SAMPLE: READING AND MATHEMATICS SUBTESTS

During the fall of 1984, the third grade reading and mathematics subtests were administered to a sample of 3,943 third and fourth grade students in twenty-two Indiana school corporations. Third and fourth grade students were included in the sample in order to estimate mid-year performance data, since the tests were piloted near the beginning of the school year. School corporations were selected in order to obtain a sample of students representative of both Indiana and the national sample on which test items were calibrated by the contractor. Table 6-1 provides a breakdown of the sample, while Appendix G lists corporations which participated in the tryout.

Insert Table 6-1
About Here

6.32 TRYOUT SAMPLE: WRITING TEST

During the spring of 1985, the third grade writing test was administered to 3,967 third grade students in sixteen corporations. A breakdown of this sample appears in Table 6-2 and participating corporations are listed in Appendix G.

Insert Table 6-2
About Here

6.33 TRYOUT PROCEDURES

Tryout of the third grade reading and mathematics subtests occurred on November 5 and 6, 1984. Tryout of the writing subtests was conducted on April 16, 1985. All subtests were administered to students in their classrooms by their regular teachers.

During the testing sessions, teachers completed two surveys regarding students and their own reactions to the test instruments. One survey (Attendance/Timing Survey) called for information regarding length of time required to complete each section of the test, along with students' test-taking behaviors. The other survey (Teacher Reaction Survey) obtained information on teachers' opinions about the format and content of the test. Responses to these surveys were analyzed with the tryout data and used to recommend additional modifications to the test instrument.

6.34 THIRD GRADE TRYOUT RESULTS

Data obtained from the tryout were used to analyze the technical characteristics of the reading and mathematics subtests. These characteristics are summarized in Table 6-3. Also, an item analysis was performed to determine average item difficulty levels. Results of the item analysis are shown in Table 6-4.

Insert Table 6-3
About Here

Insert Table 6-4
About Here

Generally, the tests exhibited the psychometric characteristics specified by the State Board of Education. However, two performance objectives, ("classifying" on the Reading Comprehension test, "division" on Mathematics Computation test) did not yield satisfactory results. On recommendation of the Advisory Council, the State Board of Education decided to delete these objectives from the test.

Analysis of responses on the third grade writing subtests are underway and are expected to be completed by early summer, 1985. After results have been reviewed by the State Board of Education, they will be presented in an updated edition of this chapter.

6.4 TRYOUT OF GRADE 6 TEST

6.41 SIXTH GRADE TRYOUT SAMPLE

During the spring of 1985, the sixth grade reading, mathematics and writing subtests were administered to a sample of 3,993 students in sixteen school corporations. Characteristics of the sample are presented in Table 6-5. Participants in the tryout are listed in Appendix G.

Insert Table 6-5
About Here

6.42 TRYOUT PROCEDURES

Tryout of the sixth grade reading and mathematics test instruments were conducted on March 5 and 6, 1985. Tryout of the sixth grade writing test instruments occurred on April 16, 1985. Tryout procedures, including administration of the Attendance/Timing and Teacher Reaction surveys, were the same as those utilized in the third grade tryouts.

6.43 SIXTH GRADE TEST TRYOUT RESULTS

At the time of this writing, analysis of the sixth grade tryout data is underway. Results of the analysis, expected to be completed in mid-1985, will be described in an updated edition of this manual.

6.5 FINAL APPROVAL OF TEST

6.51 FINAL APPROVAL OF THIRD GRADE READING AND MATHEMATICS TEST

After considering the results of the Fall, 1984 tryout, along with recommendations by the Department of Education, the State Advisory Council and the contractor, the State Board of Education approved the final form of the third grade reading and mathematics subtests. The State Board will periodically review, revise and approve subsequent versions of these subtests throughout the duration of the testing and remediation program.

6.52 FINAL APPROVAL OF THIRD GRADE WRITING AND SIXTH GRADE TEST INSTRUMENTS

As analyses of other test tryout results are completed in 1985, the State Board will review those results and approve final forms of these test instruments.

6.53 SELECTION OF ADDITIONAL GRADE LEVELS TO BE TESTED

To date, students in Grade Three and Grade Six have been selected as participants in the testing and remediation program. In 1985, the State Board of Education will select one additional grade level for program participation. After this additional grade level has been selected, an appropriate competency test instrument will be constructed and subjected to tryout during the spring of 1986.

CHAPTER VII

Description of the Grade Three Test

7.1 TEST STRUCTURE

7.11 SUBTEST

The Indiana Basic Competency Skills Test contains six subtests measuring the following skill areas: a) Reading Vocabulary; b) Reading Comprehension; c) Mathematics Computation; d) Mathematics Concepts and Applications; e) Writing Mechanics; and f) Writing Sample. Each subtest is designed to be administered in separate testing sessions. These sessions are described in Chapter 2, "Administering the Test."

7.12 SUBSKILL AREAS

Each subtest measures students' performance on a number of subskills, identified components of the major skill areas tapped by the subtests. In turn, each subskill is measured by five items, selected to provide representative exemplars of the subskill's domain.

7.12 DIAGRAM OF TEST STRUCTURE

The overall structure of the IBCST and the various subtests may be conceptualized using the model shown in Figure 7-1.

Insert Figure 7-1
About Here

7.2 READING VOCABULARY SUBTEST

7.21 OVERVIEW

The Reading Vocabulary Subtest measures students' skills in understanding the meanings of common vocabulary words. Vocabulary skills are considered critical to effective reading comprehension and are conceptually similar to other comprehension skills. However, vocabulary is included in a separate subtest because these subskills are measured with conceptually different types of items.

The Reading Vocabulary subtest includes three subskills: a) Identifying Synonyms; b) Identifying Multiple Meanings; and c) Using Context Clues. Each subskill is measured by five items, for a total of 15 items on the subtest.

In contrast to items measuring other reading comprehension subskills, Reading Vocabulary items are unique in two significant ways. First, the items are self-contained, meaning that they may be answered without reference to separate reading passages. Second, instructions for completing the items are not included in the test booklet. Instead, instructions are provided verbally by the teacher, who reads them directly from the TEACHER'S MANUAL. Thus, it is important that the teacher read the Vocabulary subtest instructions to students PRECISELY as they appear in the TEACHER'S MANUAL, to insure that all students uniformly understand their task.

7.22 IDENTIFYING SYNONYMS

This subskill involves the identification of words with similar meanings. Each item presents a stimulus word in a two-word prompt. The student selects one of four word choices which is similar in meaning to the stimulus word.

SAMPLE ITEM: TINY ball

0 young 0 small 0 big 0 fast

7.23 IDENTIFYING MULTIPLE MEANINGS

This subskill involves the identification of a word having two different meanings. Each item presents the student with two phrases, and asks him to select one of four words which best fits both meanings.

SAMPLE ITEM: A SEASON OF THE YEAR and A PLACE WHERE WATER COMES OUT OF THE GROUND

0 fall 0 well 0 spring 0 river

7.24 USING CONTEXT CLUES

This subskill requires utilizing the context in which a word appears to determine its intended meaning. Each item presents a stimulus word in a prompt of two or three sentences. The student selects one of four word choices which has a meaning similar to the stimulus word, given the stimulus word's meaning in the context of the prompt.

SAMPLE ITEM: We saw a CAMELOPARD at the zoo. It had a very long neck, long legs and spots.

0 camel 0 leopard 0 zebra 0 giraffe

7.3 READING COMPREHENSION SUBTEST

7.31 OVERVIEW

The Reading Comprehension subtest measures basic literal and inferential comprehension subskills utilized in silent reading tasks. Also, the subtest taps selected subskills associated with critical reading/thinking comprehension.

7.32 LITERAL COMPREHENSION SUBSKILLS

Literal comprehension refers to subskills in identifying and understanding ideas and their relationships which are explicitly stated in a reading passage. This skill area includes five subskills: a) Identifying Main Ideas; b) Identifying Comparisons and Contrasts; c) Identifying Cause and Effect Relationships; d) Identifying Passage Details; and e) Identifying Sequences. Each subskill is measured by five items. All items are passage dependent, meaning that the student must refer to particular passages in the subtest for information needed to complete the items.

7.321 IDENTIFYING MAIN IDEAS

This subskill involves identifying the stated main idea or central theme of a passage. The student reads a brief story which narrates a series of events involving one or more characters. Following the story, an item calls for the student to select one of four statements which best describes the story's main idea.

> Bill went to the zoo. He laughed at the funny monkeys in their cage. He was afraid when the lion roared. A friendly zookeeper showed him many birds and fish. Bill thought all the birds and the fish were pretty.
>
> Bill saw many animals. He wanted to come back to the zoo soon.

SAMPLE ITEM: What is this story mostly about?

0 laughing at the monkeys
0 a friendly zookeeper
0 a trip to the zoo
0 being afraid when the lion roared

7.322 IDENTIFYING COMPARISONS AND CONTRASTS

This subskill requires the student to determine the ways in which people or events in a story are alike or different, when these likenesses or differences are stated. Each item presents a prompt asking the student to indicate how two characters or events in a given story are alike or different. The student selects one of four statements which correctly describes the similarity or difference between the characters or events.

SAMPLE ITEM: (Refer to the story in 7.321)

In this story, how were the birds and fish alike?

0 they were funny
0 they roared
0 they were beautiful
0 they belonged to Bill

7.323 IDENTIFYING CAUSE AND EFFECT RELATIONSHIPS

This subskill involves establishing causal relationships between events described in a passage. Each item contains a prompt presenting an event described in a given story. Using the information stated in the story, the student selects one of four statements which best describes the cause of the event (or conversely, the effect of the event).

SAMPLE ITEM: (Refer to story in 7.321)

What made Bill afraid?

0 he saw many animals
0 he saw funny monkeys
0 the lion roared
0 the zookeeper showed him birds

7.324 IDENTIFYING PASSAGE DETAILS

This subskill requires that the student identify details associated with people or events which are stated in a passage. Each item presents a prompt asking the student to identify a detail contained in a given story. The student selects one of four statements which correctly states the detail.

Susan wore a red dress to school. Her shoes were black and her coat was brown. When she saw Jane at school, she laughed because Jane was wearing a red dress too.

SAMPLE ITEM: What color was Susan's coat?

0 red
0 brown
0 white
0 black

7.325 IDENTIFYING SEQUENCES

This subskill involves identifying the order of events described in a passage. The student reads a story which narrates a series of events. Following the story, an item asks the student to indicate the order in which one of the events occurred. The student selects one of four statements which correctly states the order in which the event occurred.

First, Jan makes her bed. Next she takes a bath and gets dressed. After breakfast, she goes to school.

SAMPLE ITEM: What does Jan do before she takes a bath?

0 eats breakfast
0 gets dressed
0 goes to school
0 makes her bed

7.33 INFERENTIAL COMPREHENSION SUBSKILLS

Inferential comprehension refers to subskills associated with comprehending information which is not explicitly stated in a passage, but can be reasonably inferred from information which is stated. On the third grade test, this skill area includes three subskills: a) Predicting Outcomes; b) Identifying Inferred Comparisons and Contrasts; and c) Identifying Character Traits. Five items measure each subskill.

7.331 PREDICTING OUTCOMES

This subskill involves inferring future events or outcomes which might occur in a story, based on information provided in the story. The student reads a short story narrating events involving one or more central characters. After reading the story, the student is asked to predict what the central character(s) would do next, assuming the story were to be continued. The student selects one of four statements which best describes what the character(s) would do, given the information stated in the story.

Lisa made sure she had her sneakers. She also put her shorts and socks into her bag. Finally, she put a can of yellow balls into the bag.

SAMPLE ITEM: What is Lisa probably going to do?

0 wash her clothes
0 go swimming
0 play tennis
0 play volleyball

7.332 IDENTIFYING INFERRED COMPARISONS AND CONTRASTS

This subskill is similar to that described under the Literal Comprehension skill area, in that students are asked to identify similarities and differences between characters or events in a passage. However, as an inferential subskill, comparison and contrast refers to the identification of IMPLIED similarities and differences among people or events, based on their characteristics described in the passage. Items call for the student to draw common or distinguishing features between two characters/events in a given story, using the information provided about them in the story.

> Sarah and Julie were walking home from school. They both had their reading and spelling books. Sarah had a Michael Jackson sticker on her notebook. Julie had Jedi stickers on her notebook. Sarah said, "I am going swimming." Julie replied, "I am going to a movie tomorrow."

SAMPLE ITEM: In this story, how are Sarah and Julie alike?

0 they both like sports
0 they both like Michael Jackson
0 they both do homework
0 they both like movies

7.333 INFERRING CHARACTER TRAITS

This subskill involves inferring a character's attitudes, emotions or personal traits from information stated about the character in a passage. The student reads a story which provides descriptive information about a central character. After reading the story, the item asks the student to indicate a trait of the character which is not stated in the story. The student selects one of four statements which best describes the character's trait, given the stated information about that character.

> Andrea saw a small bird. It was running through the grass. Andrea saw that the bird was hurt. She caught the bird in her handkerchief. She took the bird to an animal doctor. The doctor said the bird would be well again soon. He told Andrea that she had done something very kind.

SAMPLE ITEM: How did Andrea probably feel when the doctor told her the bird would get well?

0 happy
0 sad
0 angry
0 afraid

7.34 CRITICAL READING/THINKING COMPREHENSION

The critical reading/thinking portion of the subtest measures selected subskills in evaluating information presented in reading passages. These subskills may be considered higher-order aspects of comprehension.

This portion of the subtest includes two subskills: a) Distinguishing Reality from Fantasy; and b) Distinguishing Fact from Opinion. Each subskill is measured by five items.

7.341 DISTINGUISHING REALITY FROM FANTASY

This subskill involves determining if given events are real or unreal. Each item presents four statements. The student selects the one statement describing an event that is unreal or could not actually occur.

Instructions for completing the five items measuring this subskill are not printed in the test booklet. Instructions are provided verbally by the teacher, who reads them directly from the TEACHER'S MANUAL. As is the case when reading instructions for the Reading Vocabulary Subtest, it is important that these instructions be read exactly as they appear in the manual.

SAMPLE ITEM:

0 John walked to school
0 He could not open the school's door
0 The door laughed at John
0 Someone came to open the door

7.342 DISTINGUISHING FACT FROM OPINION

This subskill refers to judgments as to whether information in a passage is factual or an opinion of the author. Each item presents four statements related to a given story. The student selects the statement which describes information presented as a fact in the story.

Carol ate cereal for breakfast. She put milk and berries on the cereal. She tried to make toast but the bread burned in the new toaster. Carol ate two bowls of cereal. She liked her breakfast very much.

SAMPLE ITEM: In this story, which sentence is true?

0 Carol ate cereal
0 Carol does not like cereal
0 The toaster was old
0 Carol was not hungry

7.4 MATHEMATICS COMPUTATION SUBTEST

7.41 OVERVIEW

The Mathematics Computation subtest measures students' skills in using basic addition, subtraction and multiplication facts to perform these operations. The subtest contains 15 items measuring three subskills: a) addition; b) subtraction; and c) multiplication. Items are presented in vertical and horizontal (number sentence) forms.

7.42 ADDITION

This subskill involves addition of one-, two-, and three-digit numbers with sums ranging from less than 100 to greater than 1000. Some operations require regrouping. Each item presents a stimulus operation and five answer choices. The student selects the correct answer to the operation or indicates that the correct answer is not among the choices.

SAMPLE ITEMS:

$$\begin{array}{r} 25 \\ +26 \\ \hline \end{array}$$

0 51
0 61
0 41
0 66
0 none of these

13 + 18 =

0 21
0 32
0 31
0 25
0 none of these

7.43 SUBTRACTION

This subskill concerns subtraction of one-,two-, and three-digit numbers and use of selected subtraction facts (e.g., regrouping, subtraction of zero from a number) in performing operations. Each item presents a stimulus operation and five answer choices. The student selects the correct answers to the operation or indicates that the correct answer is not provided among the choices.

SAMPLE ITEMS: 83 - 2 =

0 85
0 81
0 73
0 63
0 none of these

417
-204
----
0 213
0 221
0 413
0 621
0 none of these

7.44 MULTIPLICATION

This subskill involves use of multiplication facts to perform operations. These operations include: a) tables through 9 x 10; b) multiplication by zero and one; and c) multiplication of two-digit multiplicands by one-digit multipliers, with products less than 100. Each item presents a stimulus operation and five answer choices. The student selects the correct answer or indicates that the correct answer is not among the choices.

SAMPLE ITEM:

a) 8 x 4 =
0 12
0 30
0 36
0 4
0 none of these

b) 2
x10
---
0 12
0 20
0 10
0 17
0 none of these

c) 1 x 75 =
0 76
0 74
0 81
0 75
0 none of these

7.5 MATHEMATICS CONCEPTS AND APPLICATIONS SUBTEST

7.51 OVERVIEW

The Concepts and Applications subtest measures skills in conceptualizing basic mathematical relationships and applying these relationships to solve problems. The subtest includes five subskills: a) numbers and numeration; b) geometry; c) measurement; d) number sentences; and e) graphs and charts. On each subskill, three items measure understanding of the concepts while two items measure application of the concept to solving problems. Thus, each subskill is tapped by five items, for a total of 25 items.

7.52 NUMBERS AND NUMERATION

This subskill pertains to understanding basic rules of the numeration system. This includes: a) relating numbers in written and numeral forms; b) ordering numbers by magnitude; c) renaming numbers; and d) identifying place values of two-, three-, and four-digit numbers.

Concept items ask the student to identify particular numbers which satisfy given number/numeration concepts. Application items present problems involving renaming or identifying place values of numbers. For each type of item, the student selects the correct answer from four or five choices.

SAMPLE ITEMS: (Concept)

Which numeral has a 2 in the tens place?

0 245
0 372
0 126
0 292
0 none of these

(Application)

Jane had two thousand, six hundred and fifty-seven stamps. How many stamps did she have?

0 2000
0 2675
0 2650
0 2657
0 none of these

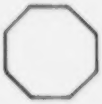
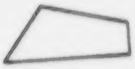
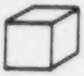
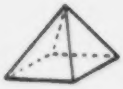
7.53 GEOMETRY

This subskill refers to understanding basic geometric concepts and relating concepts to objects in the physical world. This subskill includes: a) identifying and distinguishing among various geometric shapes (e.g., triangles, squares, multi-sided figures, three dimensional shapes); b) identifying right angles; c) identifying parts of circles; and d) identifying objects which exemplify various geometric shapes.

Concept items ask the student to identify drawings which correctly depict given geometric concepts. Application items ask the student to identify drawings of objects which exemplify given concepts. For both types of items, the student selects the correct answer from four or five choices.

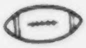
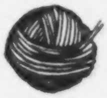
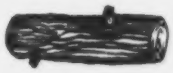
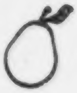
SAMPLE ITEMS: (Concept)

Which figure is a cube?

☐  ☐  ☐  ☐ 

(Application)

Which of these is most like a sphere?

☐  ☐  ☐  ☐ 

7.54 MEASUREMENT

This subskill refers to understanding and applying common systems of measurement. This subskill includes: a) identifying units and intervals of length, distance, volume, time and money; b) ordering and comparing measurement units by magnitude; c) renaming measurement units; and d) performing operations (i.e., addition, subtraction) to combine and break down amounts within measurement scales.

Concept items ask the student to identify particular units or intervals associated with given measurement systems. Application items present problems requiring the use of given measurement systems. For each type of item, the student selects the correct answer from four or five choices.

SAMPLE ITEMS: (Concept)

Which length is longest?

0 one foot
0 one inch
0 one yard
0 two feet

(Application)

Jim had two quarters, two dimes and one nickel. How much money did he have?

0 75 cents
0 74 cents
0 80 cents
0 53 cents
0 none of these

7.55 NUMBER SENTENCES

This subskill pertains to understanding relationships among variables in number sentences. It includes: a) using basic arithmetic facts to solve number sentences involving addition, subtraction and multiplication; b) using information provided in story problems to construct number sentences appropriate for solving the problems; and c) solving number sentences involving inverse operations (e.g., addition and subtraction).

Concept items present open number sentences and ask the student to identify numbers which correctly complete the sentences. Application items present problems and ask the student to identify numbers or number sentences which are appropriate for solving the problems. For each type of item, the student selects the correct answer from four or five choices.

SAMPLE ITEMS: (Concept)

What number goes in the box to make this number sentence true?

$\square + 2 = 4$

0 3
0 1
0 2
0 4

(Application)

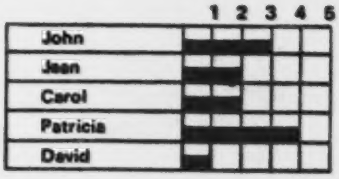
Tammy had five balls. She gave three balls to Jane. Which number sentence shows how to find out how many balls Tammy had left?

0 5 - 2 =
0 3 - 2 =
0 5 - 3 =
0 5 + 3 =

7.56 GRAPHS AND CHARTS

This subskill involves understanding the structure and interpretation of various types of graphs and charts. This subskill includes: a) interpreting information contained in picture graphs, bar graphs, and pie charts; b) comparing entries in graphs and charts; and c) using graphed/charted information to solve problems.

All items refer students to various graphs and charts in the test booklet. Concept items ask the student to identify particular items of information contained in a chart/graph. Application items present a problem and ask the student to identify the correct answer, using information in given charts/graphs. For both types of items, the student selects the correct answer (or indicates that the correct answer is not given) from four or five choices.



SAMPLE ITEM: (Concepts)
How many balls does Patricia have?

0 5
0 4
0 2
0 3
0 none of these

(Applications)
How many more balls does John have than David?

0 4
0 1
0 3
0 2

7.6 WRITING MECHANICS TEST

7.61 OVERVIEW

The writing mechanics subtest will measure student's skills in spelling, capitalization, punctuation and grammar. Each of these subskills will be measured by eight items for a total of thirty-two items. A multiple choice format is used throughout. Directions for completing the test are included in the TEACHER'S MANUAL and must be read to the students.

7.62 SPELLING

This subskill involves the recognition of correctly spelled words. This includes: a) words with long and short vowels and vowel combinations; b) consonant blends (e.g., bl, dr, etc.) and digraphs (e.g., ch, ck, etc.); c) vowel controllers (e.g., r in fir, silent e, etc), digraphs (e.g., ay, ea, etc.) and diphthongs (e.g., oi, oy, etc.). Each item presents a stimulus sentence with a blank which must be completed with a correctly spelled word. The student selects one of the four choices which indicates the correct spelling of the missing word.

SAMPLE ITEM:

Johnny gave __________ the money

0 you
0 yue
0 yoi
0 yu

7.63 CAPITALIZATION

This subskill involves capitalization of appropriate words in a sentence. The subskill includes capitalizing: a) the first word of a sentence; b) proper nouns, names and formal titles; c) titles of books and stories; d) days of the week; and e) months.

SAMPLE ITEM:

mary went/to the beach/ on yesterday.   none
0   0   0   0

7.64 PUNCTUATION

This subskill involves identifying the correct use of simple punctuation marks. Given a stimulus sentence, the student selects the correct punctuation from four choices or if none is needed, marks "none."

SAMPLE ITEM:

Mary's birthday is tomorrow
0 .   0 ,   0 ?   0 !   0 none

7.65 GRAMMAR

This subskill tests the student's knowledge of the fundamental rules of standard English usage. This subskill requires the student to choose the correct: a) adjective or adverb modifier; b) subject/verb agreement; c) simple verb tense; d) degree of adjective comparisons (i.e., positive, comparative or superlative); and e) case of pronoun (i.e., nominative, objective or possessive). Each item contains a stimulus sentence and requires the student to select the correct word form from two to four possible choices.

SAMPLE ITEM:

Billy is the ________ boy in our class.

0 tall
0 taller
0 tallest

7.7 WRITING SAMPLE SUBTEST

7.71 OVERVIEW

The purpose of the writing sample subtest is to obtain a direct assessment of the student's writing skills by requiring the student to produce a writing sample. The writing sample will be scored by holistic and primary trait scoring methods yielding two scores per sample. Holistic scoring is based upon the rater's overall impression of the effectiveness of a writing sample. Primary trait scoring, on the other hand, focuses on the writer's ability to blend the audience, speaker role, purpose and subject matter required by the writing task. Papers will be scored in comparison to example papers selected from Indiana's third grade writing tryout. A sample scoring guide can be found in Appendix B. Appendix H contains a more detailed description of these scoring methods.

7.72 WRITING SAMPLE

This subtest will measure students' skills in writing a response to a specific set of directions. This set of directions or "prompt" is intended to elicit a narrative or descriptive essay which is expressive in purpose and addressed to a specified familiar audience. To help students prepare for their writing task, pre-writing activities will be prescribed in the TEACHER'S MANUAL. Students will be given thirty minutes to respond to the prompt.

SAMPLE PROMPT:

(Descriptive)
Think about your favorite grown-up. Write a
letter to your best friend describing that
person and tell what makes that person special.

SAMPLE PROMPT: (Narrative)
Imagine that you wake up one morning and find that
you have become your favorite animal. Write a story
for the class telling about an adventure you had when
you were that animal.

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LIST OF FIGURES

CHAPTER/TABLE NUMBER	DESCRIPTION	PAGE
7-1	Internal structure of the IBCST - Grade 3	

FIGURE 7 - 1
INTERNAL STRUCTURE OF THE THIRD GRADE TEST

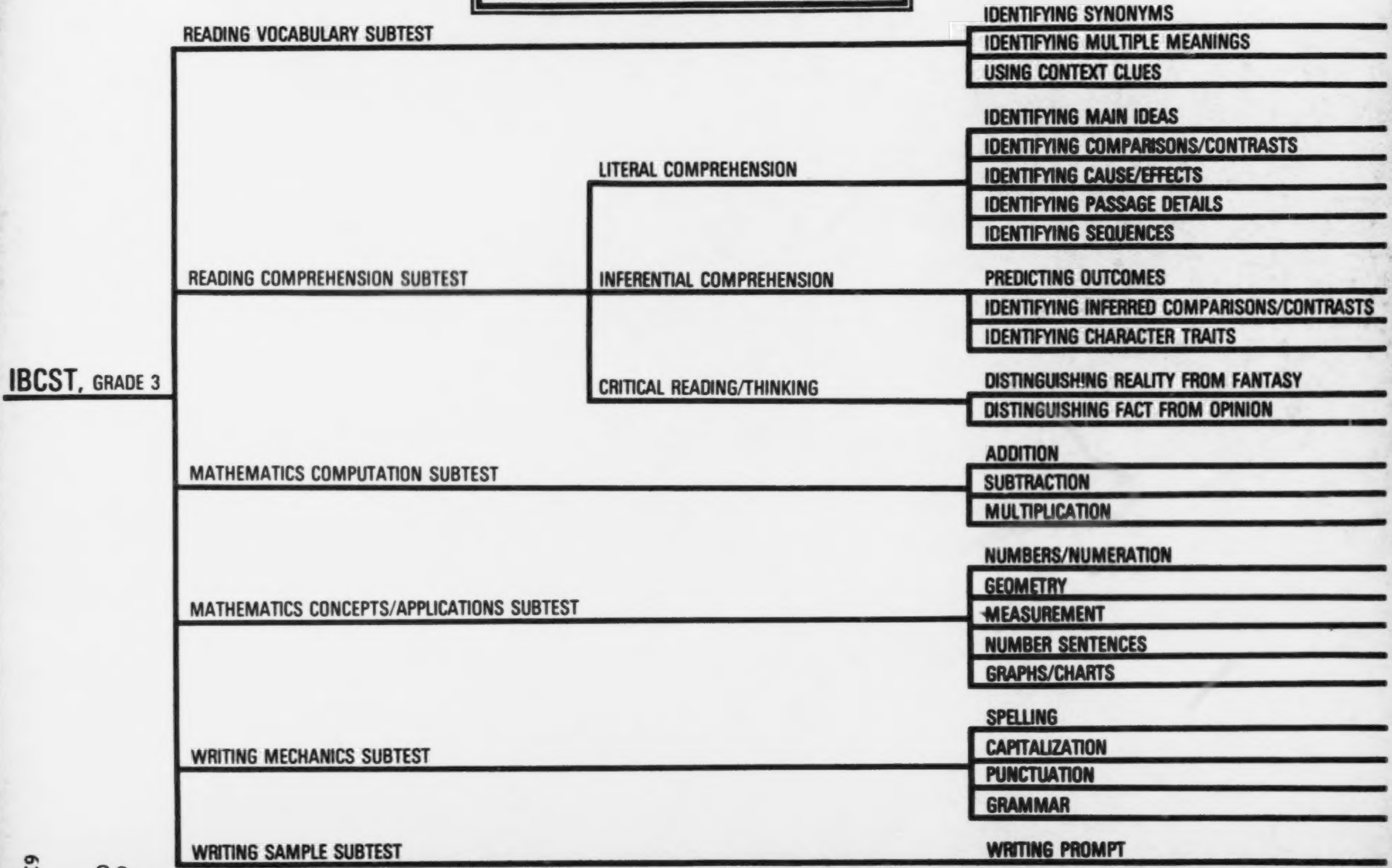
IBCST, GRADE 3
READING VOCABULARY SUBTEST
IDENTIFYING SYNONYMS
IDENTIFYING MULTIPLE MEANINGS
USING CONTEXT CLUES
READING COMPREHENSION SUBTEST
LITERAL COMPREHENSION
IDENTIFYING MAIN IDEAS
IDENTIFYING COMPARISONS/CONTRASTS
IDENTIFYING CAUSE/EFFECTS
IDENTIFYING PASSAGE DETAILS
IDENTIFYING SEQUENCES
INFERENTIAL COMPREHENSION
PREDICTING OUTCOMES
IDENTIFYING INFERRED COMPARISONS/CONTRASTS
IDENTIFYING CHARACTER TRAITS
CRITICAL READING/THINKING
DISTINGUISHING REALITY FROM FANTASY
DISTINGUISHING FACT FROM OPINION
MATHEMATICS COMPUTATION SUBTEST
ADDITION
SUBTRACTION
MULTIPLICATION
MATHEMATICS CONCEPTS/APPLICATIONS SUBTEST
NUMBERS/NUMERATION
GEOMETRY
MEASUREMENT
NUMBER SENTENCES
GRAPHS/CHARTS
WRITING MECHANICS SUBTEST
SPELLING
CAPITALIZATION
PUNCTUATION
GRAMMAR
WRITING SAMPLE SUBTEST
WRITING PROMPT

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Table 2-1
Suggested Testing Schedule: Grade 3

Day	Session	Test	Items	Time
1	1	Reading Vocabulary	1-20	25 min.
		10 minute break		
1	2	Reading Comprehension	26-48	26 min.
		10 minute break		
1	3	Reading Comprehension	49-65	26 min.
2	4	Math Computations	1-20	18 min.
		10 minute break		
2	5	Math Concepts/ Applications	21-45	26 min.
		10 minute break		
3	6	Writing Mechanics	1-20	20 min.
		10 minute break		
3	7	Writing Sample	1-2	30 min.

*The writing test (Session 6 and 7) will be given for the first time in 1986.

Table 2-2
Suggested Testing Schedule: Grade 6

Day	Session	Test	Items	Time
1	1	Reading Vocabulary	1-15	15 min.
		10 minute break		
1	2	Reading Comprehension	16-52	32 min.
		10 minute break		
1	3	Reading Comprehension	53-76	26 min.
2	4	Math Computations	1-15	16 min.
		10 minute break		
2	5	Math Concepts/	16-55	31 min.
		10 minute break		
3	6	Writing Mechanics	1-20	20 min.
		10 minute break		
3	7	Writing Sample		30 min.

Table 3-1
Summary of Score Reports

Report Title	Description	Level of Report
Individual Score Report	Student results by objectives, subtests and composite test	Student
Performance Analysis Report (PAR) by Class	Class results on objectives, subtests and composite test	Student Class
PAR: School Summary	Average results (number correct) on objectives and subtests for school and classes within school	Class, School
PAR: District Summary	Average results (number correct) on objectives and subtests for corporation and schools within corporation	School, Corporation
Item Analysis Reports	Breakdown of item response patterns by classes, schools and corporation	Class School, Corporation
Frequency Distribution Funding Report	Statewide and corporation score distribution on composite test and subtest. Percentile ranks of scores and number of corporation students below state cutoff score	Corporation State
Class Record List	Standard, nationally normed scores on composite test and subtests by student. Average standard scores by class, school and corporation	Student, Class, School, Corporation

TABLE 3-2

Individual Score Report

A

STUDENT : IRVING M. ERNEST
TEACHER : SMITH
SCHOOL : SCHOLAR
DISTRICT: HAPPY HOLLOW

0150
12/ /74
INDIANA
11/84
IN
PAGE
1 OF 1

CTBUSE 00001-2595-001-001
RUN DATE 02/02/85

IN BASIC COMPETENCY SKILLS

IBSCT BOOK NO 06166

110013 B

	MAS / NON MAS	ITEMS RIGHT	% ITEMS RIGHT	MAS LEV	TEACHER USE
READING TEST C	H	E	F	G	J
PT. I - VOCABULARY					
SYNONYMS		4	80		-------
CONTEXT CLUES		5	++		-------
MULTIPLE MEANINGS		5	++		-------
PT. II - COMPREHENSION					
REALITY VS. FANTASY		2	40		-------
PASSAGE DETAILS		1	20		-------
SEQUENCE		1	20		-------
CHARACTER ANALYSIS		0	0		-------
CAUSE & EFFECT - LITERAL D		1	20		-------
FACT VS. OPINION		3	60		-------
COMPARISON / CONTRAST - LITERAL		0	0		-------
COMPARISON / CONTRAST - INFERENTIAL		0	0		-------
MAIN IDEA		0	0		-------
PREDICTING OUTCOMES		1	20		-------
SUMMARY K		23/65	35		-------
MATHEMATICS TEST					
PT. I - COMPUTATION					
ADDITION		1	20		-------
SUBTRACTION		0	0		-------
MULTIPLICATION		1	20		-------
PT. II - CONCEPTS & APPLICATIONS					
NUMERATION		2	40		-------
GEOMETRY		2	40		-------
MEASUREMENT		1	20		-------
NUMBER SENTENCES		1	20		-------
GRAPHS / CHARTS		1	20		-------
SUMMARY		9/40	23		-------
COMPOSITE TOTALS L		32/105	30		------- -------

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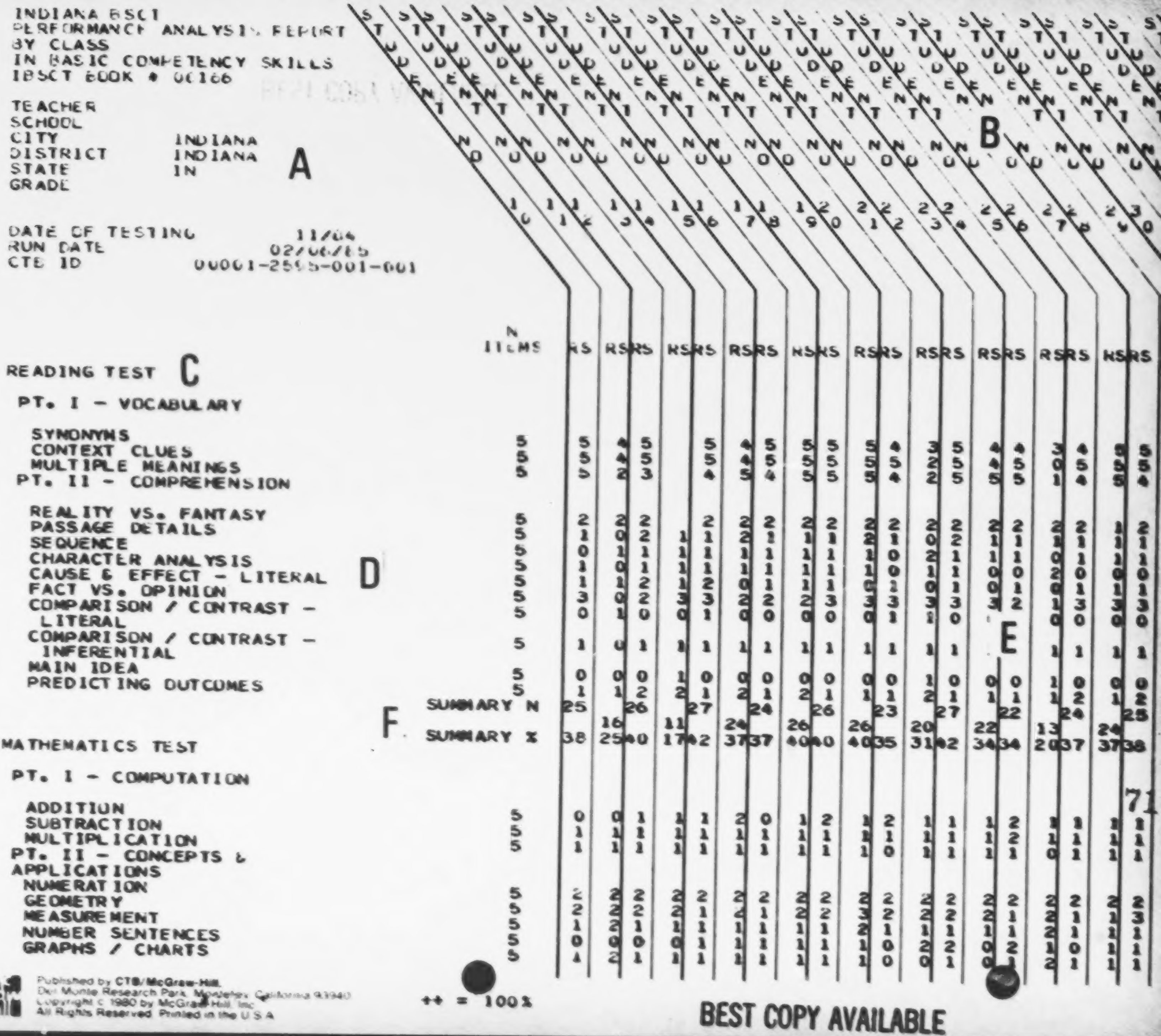
TABLE 3-3

Performance Analysis Report by Class



INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
BY CLASS
IN BASIC COMPETENCY SKILLS
IBSCT BOOK # 00166

TEACHER
SCHOOL
CITY INDIANA
DISTRICT INDIANA
STATE IN
GRADE

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00061-2555-001-001

	N ITEMS	STUDENT NO 10	STUDENT NO 11	STUDENT NO 12	STUDENT NO 13	STUDENT NO 14	STUDENT NO 15	STUDENT NO 16	STUDENT NO 17	STUDENT NO 18	STUDENT NO 19	STUDENT NO 20	STUDENT NO 21	STUDENT NO 22	STUDENT NO 23	STUDENT NO 24	STUDENT NO 25	STUDENT NO 26	STUDENT NO 27	STUDENT NO 28
		RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS
READING TEST																				
PT. I - VOCABULARY																				
SYNONYMS	5	5	4	5		5	4	5	5	5	5	4	3	5	4	4	3	4	5	5
CONTEXT CLUES	5	5	4	5		5	4	5	5	5	5	5	2	5	4	5	0	5	5	5
MULTIPLE MEANINGS	5	5	2	3		4	5	4	5	5	5	4	2	5	5	5	1	4	5	4
PT. II - COMPREHENSION																				
REALITY VS. FANTASY	5	2	2	2		2	2	2	2	2	2	2	2	2	2	2	2	2	1	2
PASSAGE DETAILS	5	1	0	2	1	1	2	1	1	1	2	1	0	2	1	1	1	1	1	1
SEQUENCE	5	0	1	1	1	1	1	1	1	1	1	0	2	1	1	1	0	1	1	1
CHARACTER ANALYSIS	5	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	2	0	0	0
CAUSE & EFFECT - LITERAL	5	1	1	2	1	2	0	1	1	1	0	1	0	1	0	1	0	1	1	1
FACT VS. OPINION	5	3	0	2	3	3	2	2	2	3	3	3	3	3	3	2	1	3	3	3
COMPARISON / CONTRAST - LITERAL	5	0	1	0	0	1	0	0	0	0	0	1	1	0			0	0	0	0
COMPARISON / CONTRAST - INFERENTIAL	5	1	0	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1
MAIN IDEA	5	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
PREDICTING OUTCOMES	5	1	1	2	2	1	2	1	2	1	1	1	2	1	1	1	1	2	1	2
SUMMARY N		25	16	26	11	27	24	24	26	26	26	23	20	27	22	22	13	24	24	25
SUMMARY %		38	25	40	17	42	37	37	40	40	40	35	31	42	34	34	20	37	37	38
MATHEMATICS TEST																				
PT. I - COMPUTATION																				
ADDITION	5	0	0	1	1	1	2	0	1	2	1	2	1	1	1	2	1	1	1	1
SUBTRACTION	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1
MULTIPLICATION	5	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1
PT. II - CONCEPTS & APPLICATIONS																				
NUMERATION	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
GEOMETRY	5	2	2	2	2	1	2	1	2	2	3	2	2	2	2	1	2	1	1	3
MEASUREMENT	5	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1
NUMBER SENTENCES	5	0	0	0	0	1	1	1	1	1	1	0	2	2	0	2	1	0	1	1
GRAPHS / CHARTS	5	1	2	1	1	1	1	1	1	1	1	0	0	1	0	1	2	1	1	1

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TABLE 3-3
(Continued)

INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
BY CLASS
IN BASIC COMPETENCY SKILLS
IBSCT BOOK # 06166

TEACHER
SCHOOL
CITY INDIANA
DISTRICT INDIANA
STATE IN
GRADE

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00001-2595-001-001

N ITEMS	STUDENT NO 10	STUDENT NO 11	STUDENT NO 12	STUDENT NO 13	STUDENT NO 14	STUDENT NO 15	STUDENT NO 16	STUDENT NO 17	STUDENT NO 18	STUDENT NO 19	STUDENT NO 20	STUDENT NO 21	STUDENT NO 22	STUDENT NO 23	STUDENT NO 24	STUDENT NO 25	STUDENT NO 26	STUDENT NO 27	STUDENT NO 28	STUDENT NO 29	STUDENT NO 3
	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS
SUMMARY N	8	10	9	9	9	11	8	10	11	12	8	10	11	8	12	11	8	9	11	9	11
SUMMARY %	20	25	23	23	23	28	20	25	28	30	20	25	28	20	30	28	20	23	28	23	2
G SUMMARY BY STUDENT: PERCENT CORRECT	31	25	33	19	34	33	30	34	35	36	30	29	36	29	32	23	30	31	34	31	34
TOTAL ITEMS CORRECT	33	26	35	20	36	35	32	36	37	38	31	30	38	30	34	24	32	33	36	33	3

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TABLE 3-4

Performance Analysis Report: School Summary

INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
SCHOOL SUMMARY
IN BASIC COMPETENCY SKILLS
IBSCT BOOK # 06166

SCHOOL
CITY INDIANA
DISTRICT INDIANA
STATE IN
GRADE

A

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00001-2595-001

D

	N ITEMS	TEACHER NO 2 RS	TOTAL SCHOOL RS
READING TEST B			
PT. I - VOCABULARY			
SYNONYMS	5	5	5
CONTEXT CLUES	5	5	5
MULTIPLE MEANINGS	5	4	4
PT. II - COMPREHENSION			
REALITY VS. FANTASY C	5	2	[illegible]
PASSAGE DETAILS	5	1	[illegible]
SEQUENCE	5	1	[illegible]
CHARACTER ANALYSIS	5	1	1
CAUSE & EFFECT - LITERAL	5	1	1
FACT VS. OPINION	5	3	3
COMPARISON / CONTRAST - LITERAL	5	0	0
COMPARISON / CONTRAST - INFERENTIAL	5	1	1
MAIN IDEA	5	0	0
PREDICTING OUTCOMES	5	1	1
AVERAGE NUMBER OF ITEMS CORRECT		24	24
F AVERAGE PERCENT OF ITEMS CORRECT		37	37
NUMBER OF CASES		105	105
MATHEMATICS TEST			
PT. I - COMPUTATION			
ADDITION	5	1	1
SUBTRACTION	5	1	1
MULTIPLICATION	5	1	1
PT. II - CONCEPTS & APPLICATIONS			
NUMERATION	5	2	2
GEOMETRY	5	2	2
MEASUREMENT	5	1	1
NUMBER SENTENCES	5	1	1

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TABLE 3-4
(Continued)

INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
SCHOOL SUMMARY
IN BASIC COMPETENCY SKILLS
IBSCT BOOK # 06166

SCHOOL
CITY INDIANA
DISTRICT INDIANA
STATE IN
GRADE

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00001-2595-001

	N ITEMS	TEACHER NO 2 RS	TOTAL SCHOOL RS
GRAPHS / CHARTS	5	1	1
AVERAGE NUMBER OF ITEMS CORRECT		9	9
AVERAGE PERCENT OF ITEMS CORRECT		23	23
NUMBER OF CASES		111	111
G COMPOSITE AVERAGE NUMBER OF ITEMS CORRECT		33	33
AVERAGE PERCENT OF ITEMS CORRECT		31	31
NUMBER OF CASES		106	106

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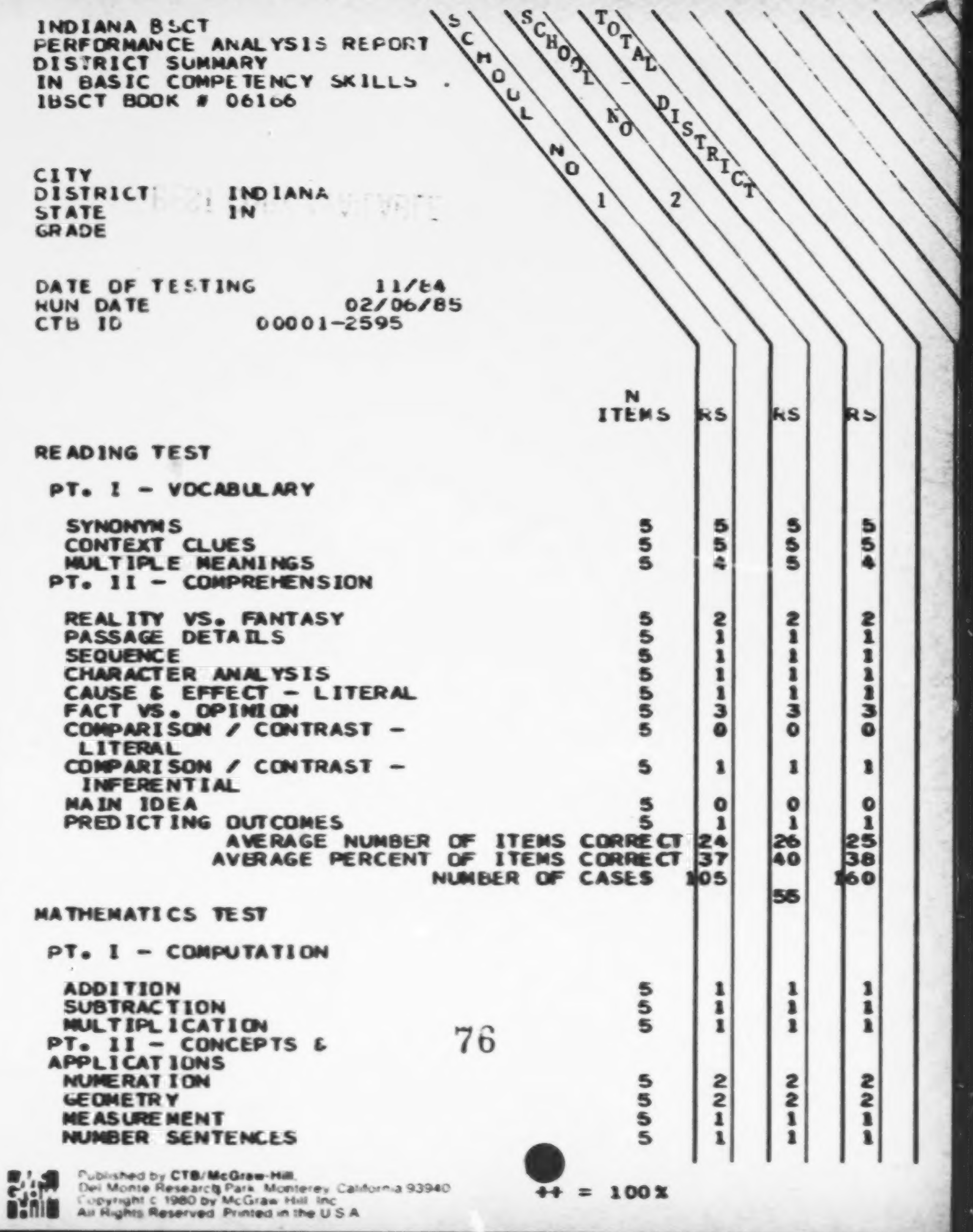
TABLE 3-5

Performance Analysis Report: District Summary



INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
DISTRICT SUMMARY
IN BASIC COMPETENCY SKILLS .
IBSCT BOOK # 06166

CITY
DISTRICT INDIANA
STATE IN
GRADE

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00001-2595

	N ITEMS	SCHOOL NO 1 RS	SCHOOL NO 2 RS	TOTAL DISTRICT RS
READING TEST				
PT. I - VOCABULARY				
SYNONYMS	5	5	5	5
CONTEXT CLUES	5	5	5	5
MULTIPLE MEANINGS	5	4	5	4
PT. II - COMPREHENSION				
REALITY VS. FANTASY	5	2	2	2
PASSAGE DETAILS	5	1	1	1
SEQUENCE	5	1	1	1
CHARACTER ANALYSIS	5	1	1	1
CAUSE & EFFECT - LITERAL	5	1	1	1
FACT VS. OPINION	5	3	3	3
COMPARISON / CONTRAST - LITERAL	5	0	0	0
COMPARISON / CONTRAST - INFERENTIAL	5	1	1	1
MAIN IDEA	5	0	0	0
PREDICTING OUTCOMES	5	1	1	1
AVERAGE NUMBER OF ITEMS CORRECT		24	26	25
AVERAGE PERCENT OF ITEMS CORRECT		37	40	38
NUMBER OF CASES		105	55	160
MATHEMATICS TEST				
PT. I - COMPUTATION				
ADDITION	5	1	1	1
SUBTRACTION	5	1	1	1
MULTIPLICATION	5	1	1	1
PT. II - CONCEPTS & APPLICATIONS				
NUMERATION	5	2	2	2
GEOMETRY	5	2	2	2
MEASUREMENT	5	1	1	1
NUMBER SENTENCES	5	1	1	1

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TABLE 3-5
(Continued)

INDIANA BSCT
PERFORMANCE ANALYSIS REPORT
DISTRICT SUMMARY
IN BASIC COMPETENCY SKILLS
IBSCT BOOK # 06166

CITY
DISTRICT INDIANA
STATE IN
GRADE

DATE OF TESTING 11/84
RUN DATE 02/06/85
CTB ID 00001-2595

	N ITEMS	SCHOOL NO 1 RS	SCHOOL NO 2 RS	TOTAL DISTRICT RS
GRAPHS / CHARTS	5	1	1	1
AVERAGE NUMBER OF ITEMS CORRECT		9	9	9
AVERAGE PERCENT OF ITEMS CORRECT		23	23	23
NUMBER OF CASES		111	55	166
COMPOSITE AVERAGE NUMBER OF ITEMS CORRECT		33	35	34
AVERAGE PERCENT OF ITEMS CORRECT		31	33	32
NUMBER OF CASES		105	55	160

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TABLE 3-6

Item Analysis Report

```
                              INDIANA PUPIL ASSESSMENT PROGRAM:    1984
                                       CLASS ITEM ANALYSIS

DISTRICT:       A
SCHOOL:
CLASS:
GRADE:
TEST:          IN BASIC COMPETENCY SKILLS
                                                                              NUMBER OF PUPILS TESTED:    50
                                                                             RESPONSE DISTRIBUTION (%)
OBJECTIVE              ITEM NUMBER       PERCENT CORRECT      KEY         OMIT       A          B          C

OBJECTIVE      B  SYNONYMS
                             1                  92             C            2         4          2          92*
                             2          [illegible]            D            2         0          4          12
                    C [illegible]     D [illegible]   E [illegible]         2         0          2           6
                  [illegible]         [illegible]     [illegible]           2        92*         0           4
                  [illegible]         [illegible]     [illegible]  [illegible]        6          0          90*
                                                                          F                    G
OBJECTIVE      2:  CONTEXT CLUES
                             6                  94             B  [illegible]         4         94*          0
                             7                  92             A            2        92*         0           4
                             8                  90             A            2        90*         0           2
                             9                  94             A            2        94*         0           0
                            10                  90             B            2         0         90*          6

OBJECTIVE      3:  MULTIPLE MEANINGS
                            11                  94             B            4         0         94*          2
                            12                  86             C            4         4          6          86*
                            13                  76             C            4         2         14          76*
                            14                  82             A            4        82*         6           0
                            15                  86             A            4        86*         2           8

OBJECTIVE      4:  CLASSIFYING
                            16                  98             C            2         0          0          98*
                            17                  92             C            2         2          2          92*
                            18                  90             D            2         0          6           2
                            19                  96             D            2         2          0           0
                            20                  94             C            2         2          0          94*

OBJECTIVE      5:  REALITY VS. FANTASY
                            21                  94             C            2         0          4          94*
                            22                  96             D            2         2          0           0
                            23                  94             C            2         0          2          94*
                            24                  78             B            4         8         78*          4
                            25                  88             C            2         2          4          88*

OBJECTIVE      6:  PASSAGE DETAILS
                            26                  94             B            2         0         94*          2
                            36                  92             C            2         2          0          92*
                            55                  84             C            2        10          2          84*
                            61                  88             B            2         4         88*          4
                            65                  84             C            2         4          4          84*


CTB ID: 2584-002-001              BOOK: 06166
```

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TABLE 3-7

Statewide and District Frequency Distributions/ Funding Report

STATEWIDE AND DISTRICT FREQUENCY DISTRIBUTION
OF IBCST SCORES
COMPOSITE

PREPARED BY CTB/MCGRAW HILL FOR: A
DISTRICT : INDIANA STATE: IN
FORM : A
GRADE : 3

PAGE : 1
REPORT DATE: 01/05/85
TEST DATE : 11/07/84
CTBID : 00001-2594

STATEWIDE B					YOUR DISTRICT H				
RAW SCORE	N STUDENTS	PERCENT STATEWIDE	CUM. PERC. STATEWIDE	PERCENTILE RANK	N STUDENTS	PERCENT DISTRICT	CUM. PERC. DISTRICT	PERCENTILE RANK	RAW SCORE
C	D	E	F	G					
115	1	0.46	100.00	99					115
114	1	0.46	99.54	99					114
[illegible]	6	2.78	[illegible]	[illegible]					113
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1.67	100.00	99	112
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1.67	98.33	98	111
110	7	[illegible]	[illegible]	[illegible]	1	1.67	96.67	96	110
109	9	4.17	83.80	82					109
108	16	7.41	79.63	76	4	6.67	95.00	92	108
107	10	4.63	72.22	70	2	3.33	88.33	87	107
106	14	6.48	67.59	64	5	8.33	85.00	81	106
105	13	6.02	61.11	58	3	5.00	76.67	74	105
104	7	3.24	55.09	53	3	5.00	71.67	69	104
103	8	3.70	51.85	50	1	1.67	66.67	66	103
102	10	4.63	48.15	46	4	6.67	65.00	62	102
101	3	1.39	43.52	43	1	1.67	58.33	58	101
100	4	1.85	42.13	41	1	1.67	56.67	56	100
99	7	3.24	40.28	39	3	5.00	55.00	53	99
98	8	3.70	37.04	35	1	1.67	50.00	49	98
97	5	2.31	33.33	32	1	1.67	48.33	48	97
96	6	2.78	31.02	30	3	5.00	46.67	44	96
95	6	2.78	28.24	27	1	1.67	41.67	41	95
94	1	0.46	25.46	25					94
93	2	0.93	25.00	25					93
92	4	1.85	24.07	23	1	1.67	40.00	39	92
91	3	1.39	22.22	22	3	5.00	38.33	36	91
90	1	0.46	20.83	21					90
89	4	1.85	20.37	19	2	3.33	33.33	32	89
88	4	1.85	18.52	18	1	1.67	30.00	29	88
87	2	0.93	16.67	16					87
86	3	1.39	15.74	15	3	5.00	28.33	26	86
85	4	1.85	14.35	13					85
84	3	1.39	12.50	12					84
83	1	0.46	11.11	11					83
82	1	0.46	10.65	10	1	1.67	23.33	23	82
80	1	0.46	10.19	10					80
79	1	0.46	9.72	9	1	1.67	21.67	21	79
78	1	0.46	9.26	9					78
77	2	0.93	8.80	8	2	3.33	20.00	18	77
76	1	0.46	7.87	8	1	1.67	16.67	16	76
75	1	0.46	7.41	7					75
74	1	0.46	6.94	7	1	1.67	15.00	14	74
72	2	0.93	6.48	6	2	3.33	13.33	12	72
71	1	0.46	5.56	5	1	1.67	10.00	9	71
70	1	0.46	5.09	5	1	1.67	8.33	8	70
69	1	0.46	4.63	4					69
67	1	0.46	4.17	4					67
65	1	0.46	3.70	3					65

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TABLE 3-7
(Continued)

```
                                     STATEWIDE AND DISTRICT FREQUENCY DISTRIBUTION
                                                    OF IBCST SCORES
PREPARED BY CTB/MCGRAW HILL FOR:                       COMPOSITE
DISTRICT : INDIANA       STATE: IN                                                                PAGE         :  2
FORM     : A                                                                                      REPORT DATE: 01/05/85
GRADE    : 3                                                                                      TEST DATE   : 11/07/84
                                                                                                  CTBID       : 00001-2594
----------------------------------------------------------------------------------------------------------------------------
                    STATEWIDE                                                              YOUR DISTRICT
----------------------------------------------------------------------------------------------------------------------------
  RAW         N          PERCENT      CUM. PERC. PERCENTILE                N          PERCENT      CUM. PERC. PERCENTILE    RAW
 SCORE     STUDENTS     STATEWIDE     STATEWIDE     RANK                STUDENTS     DISTRICT      DISTRICT      RANK      SCORE
----------------------------------------------------------------------------------------------------------------------------
  64          1            0.46          3.24        3                     1           1.67          6.67         6         64
  60          1            0.46          2.78        3                     1           1.67          5.00         4         60
  58          2            0.93          2.31        2                                                                      58
  56          1            0.46          1.39        1                     1           1.67          3.33         3         56
  53          1            0.46          0.93        1                                                                      53
  45          1            0.46          0.46        1                     1           1.67          1.67         1         45
----------------------------------------------------------------------------------------------------------------------------
          STATEWIDE SUMMARY            J                              DISTRICT SUMMARY
           N-COUNT:     234                                            N-COUNT:     68
           SPEC ED:       0                                            SPEC ED:      0
           OMITS  :      18                                            OMITS  :      8
           FREQ N :     216                                            FREQ N :     60
           MEAN   :      98.7                                          MEAN   :     93.1
           SD     :      13.18                                         SD     :     15.30
           SEM    :       1.27
          FUNDING INFORMATION                                        K FUNDING INFORMATION
           STATE CUTOFF SCORE:                                         STATE CUTOFF SCORE:
           STUDENTS BELOW CUTOF                                        STUDENTS BELOW CUTOFF:
```

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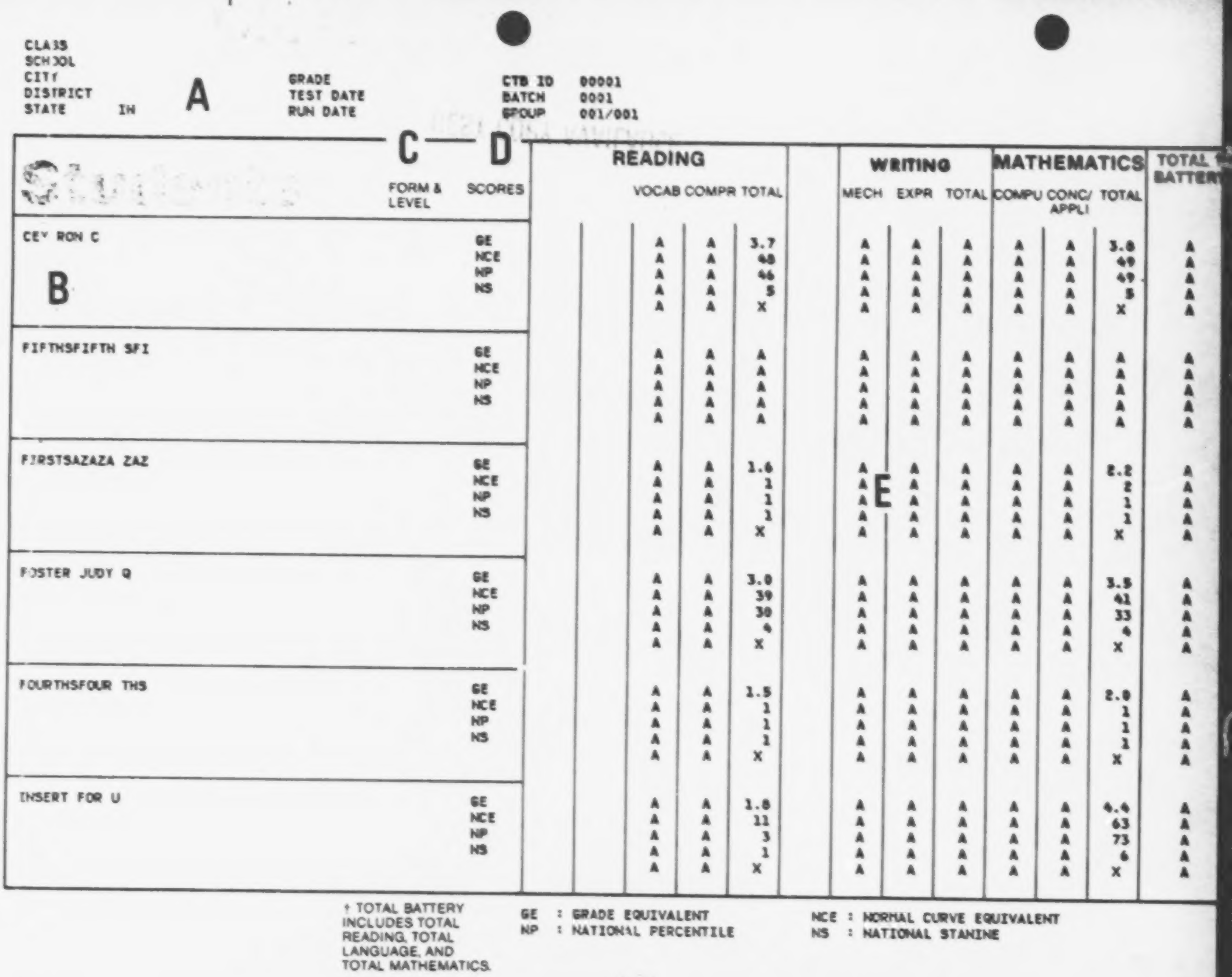
TABLE 3-8
Class Record Sheet



CLASS
SCHOOL
CITY
DISTRICT
STATE IN

GRADE
TEST DATE
RUN DATE

CTB ID 00001
BATCH 0001
GROUP 001/001

[illegible]	FORM & LEVEL	SCORES	READING VOCAB	READING COMPR	READING TOTAL	WRITING MECH	WRITING EXPR	WRITING TOTAL	MATHEMATICS COMPU	MATHEMATICS CONC/ APPLI	MATHEMATICS TOTAL	TOTAL † BATTERY
CE' RON C		GE	A	A	3.7	A	A	A	A	A	3.8	A
		NCE	A	A	48	A	A	A	A	A	49	A
		NP	A	A	46	A	A	A	A	A	49	A
		NS	A	A	5	A	A	A	A	A	5	A
			A	A	X	A	A	A	A	A	X	A
FIFTHSFIFTH SFI		GE	A	A	A	A	A	A	A	A	A	A
		NCE	A	A	A	A	A	A	A	A	A	A
		NP	A	A	A	A	A	A	A	A	A	A
		NS	A	A	A	A	A	A	A	A	A	A
			A	A	A	A	A	A	A	A	A	A
FIRSTSAZAZA ZAZ		GE	A	A	1.6	A	A	A	A	A	2.2	A
		NCE	A	A	1	A	A	A	A	A	2	A
		NP	A	A	1	A	A	A	A	A	1	A
		NS	A	A	1	A	A	A	A	A	1	A
			A	A	X	A	A	A	A	A	X	A
FOSTER JUDY Q		GE	A	A	3.0	A	A	A	A	A	3.5	A
		NCE	A	A	39	A	A	A	A	A	41	A
		NP	A	A	30	A	A	A	A	A	33	A
		NS	A	A	4	A	A	A	A	A	4	A
			A	A	X	A	A	A	A	A	X	A
FOURTHSFOUR THS		GE	A	A	1.5	A	A	A	A	A	2.0	A
		NCE	A	A	1	A	A	A	A	A	1	A
		NP	A	A	1	A	A	A	A	A	1	A
		NS	A	A	1	A	A	A	A	A	1	A
			A	A	X	A	A	A	A	A	X	A
INSERT FOR U		GE	A	A	1.8	A	A	A	A	A	4.4	A
		NCE	A	A	11	A	A	A	A	A	63	A
		NP	A	A	3	A	A	A	A	A	73	A
		NS	A	A	1	A	A	A	A	A	6	A
			A	A	X	A	A	A	A	A	X	A

† TOTAL BATTERY INCLUDES TOTAL READING, TOTAL LANGUAGE, AND TOTAL MATHEMATICS.

GE : GRADE EQUIVALENT
NP : NATIONAL PERCENTILE
NCE : NORMAL CURVE EQUIVALENT
NS : NATIONAL STANINE

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Table 6-1
Breakdown of tryout sample by ethnic group and population density, third grade Reading and Mathematics subtests

Characteristic	N Students	Pct. of Sample	Pct. Indiana*
Total N	3943		
White	3400	86.25	86.0
Black	380	9.64	11.0
Hispanic	144	3.65	2.0
Asian	18	.45	.6
American Indian	0	0	.08
Metropolitan	1215	30.84	35.1
Suburban/Town	2182	55.34	52.5
Rural	545	13.82	12.4

*Indicates the percentage of all Indiana third grade students in each ethnic and population density category.

Table 6-2
Breakdown of tryout sample by ethnic group
and population density, third grade Writing subtest

Characteristics	N Students	Pct. of Sample	Pct. Indiana*
Total N	3967		
White	3508	88.4	86.0
Black	376	9.5	11.0
Hispanic	62	1.6	2.0
Asian	18	.45	.6
American Indian	3	.08	.08
Metropolitan	801	20.2	30.8
Suburban/Town	1893	47.7	55.3
Rural	1273	32.1	13.8

*Indicates the percentage of all Indiana third grade students in each ethnic and population density catagory.

Table 6-3
Descriptive statistics, Reading and Mathematics Subtests, Third Grade

	Reading	Mathematics
Mean	59.88	34.20
Standard Dev.	11.68	8.19
Internal Consistency (KR 20)	.95	.91
Mean Item Difficulty	.86	.76
Lowest Item Difficulty	.62	.40
Highest Item Difficulty	.97	.95
Lowest Point Biserial Correlation	.24	.30
Highest Point Biserial Correlation	.60	.54

Table 6-4
Item difficulties and point biserial correlations, third grade Reading and Mathematics subtests

Objective	Item	Difficulty	Pt. Biserial
Synonyms	1	.95	.50
	2	.85	.41
	3	.93	.54
	4	.91	.54
	5	.90	.51
Context Clues	6	.93	.55
	7	.92	.58
	8	.94	.50
	9	.93	.50
	10	.94	.53
Multiple Meanings	11	.92	.44
	12	.84	.51
	13	.82	.38
	14	.85	.49
	15	.78	.50
Reality vs. Fantasy	21	.89	.38
	22	.94	.50
	23	.93	.56
	24	.84	.53
	25	.88	.46
Passage Details	26	.95	.46
	36	.93	.43
	55	.89	.53
	61	.86	.46
	65	.91	.51
Main Ideas	34	.86	.49
	41	.93	.49
	52	.65	.28 a
	59	.90	.36
	70	.82	.52
Sequences	27	.90	.45
	31	.80	.47
	45	.86	.54
	49	.74	.24 b
	66	.72	.37

Table 6-4
(Continued)

Objective	Item	Difficulty	Pt. Biserial
Fact vs. Opinion	28	.83	.44
	32	.62	.43
	46	.78	.33
	63	.77	.44
	67	.87	.49
Cause and Effect-Literal	29	.86	.55
	38	.93	.51
	43	.93	.56
	57	.81	.50
	69	.86	.60
Comparison/Contrast Literal	30	.79	.42
	33	.75	.47
	51	.77	.50
	56	.83	.47
	68	.82	.53
Character Analysis	35	.91	.54
	37	.94	.54
	42	.93	.55
	50	.82	.46
	62	.84	.59
Comparison/Contrast-Inferential	39	.88	.51
	44	.92	.57
	48	.76	.49
	53	.81	.40
	58	.71	.43
Predicting Outcomes	40	.94	.50
	47	.89	.51
	54	.87	.52
	60	.86	.45
	64	.88	.54

Table 6-4
(Continued)

Objectives	Item	Difficulty	Pt. Biserial
Addition	1	.86	.33
	2	.83	.37
	3	.84	.40
	4	.79	.39
	5	.79	.41
Subtraction	6	.84	.41
	7	.84	.36
	8	.60	.44
	9	.87	.32
	10	.87	.33
Multiplication	11	.68	.54
	12	.69	.48
	13	.73	.50
	14	.61	.48
	15	.56	.44
Numeration	21	.91	.39
	22	.85	.39
	23	.85	.35
	24	.81	.37
	25	.92	.37
Geometry	26	.63	.42
	27	.88	.41
	28	.75	.37
	29	.84	.42
	30	.89	.39
Measurement	31	.90	.38
	32	.92	.32
	33	.93	.39
	34	.88	.35
	35	.79	.39

Table 6-4
(continued)

Objective	Item	Difficulty	Pt. Biserial
Classifying [c]	16	.97	.42
	17	.97	.48
	18	.97	.48
	19	.99	.41
	20	.96	.46
Division [d]	16	.40	.52
	17	.54	.52
	18	.68	.30
	19	.42	.54
	20	.49	.44

---

[a] this item was revised on the final form of the test, to improve its discriminating power.

[b] this item was revised on the final form of the test, to improve its discriminating power.

[c] Because these items were judged too easy for most students in the sample, the objective "Classifying" and these items were deleted from the final form of the third grade test.

[d] Because these items were judged too difficult for most students in the sample, the objective "Division" and these items were deleted from the final form of the tests.

Table 6-5
Breakdown of tryout sample by ethnic group membership and population center density, sixth grade Reading, Mathematics and Writing subtests

Characteristic	N Students Sample	Pct. Sample	Pct. Indiana *
Total N	3993		
White	3477	87.07	87.31
Black	410	10.27	10.25
Hispanic	79	1.98	1.76
Asian	23	.58	.55
American Indian	4	.10	.13
Metropolitan	1126	28.2	34.0
Suburban/Town	1482	37.1	36.6
Rural	1385	34.7	29.4

*Indicates percentages of all Indiana sixth grade students in each ethnic and population density category.

LIST OF APPENDICES

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Indiana Department of Education

Harold H. Negley, Superintendent
Room 229, State House • Indianapolis, IN 46204-2798 • 317/232-6610
Division of Research & Assessment • 317/927-0213

SUGGESTIONS FOR ADMINISTERING THE INDIANA BASIC COMPETENCY SKILLS TEST

In order for any achievement or competency test to provide a reasonably accurate picture of students' skills, known sources of testing error must be minimized. The Indiana Basic Skills Competency Test has been developed in a manner that enables accurate measurement of reading, mathematics and writing skills with a minimum of measurement error resulting from the test itself.

However, some sources of measurement error cannot be directly controlled through test construction and may significantly affect the accuracy of students' scores. Two of these sources can be generally categorized as: a) errors due to students' negative attitudes, emotional states or physical states when taking the test; and b) adverse conditions in the testing environment (e.g., the classroom).

This document offers several suggestions to teachers and others responsible for test administration, on promoting effective conditions for giving the IBCST. Doubtlessly, many test administrators already will be familiar with these suggestions; however, it is hoped that they will provide a useful review.

SUGGESTIONS FOR ATTITUDINAL AND EMOTIONAL PREPARATION OF STUDENTS

1. To the degree that you can communicate to your students about the test in positive, enthusiastic terms, (both verbally and non-verbally), they will more likely respond in kind.

2. Inform students in advance that they will take the test and explain its purposes. When explaining the test, it is helpful to emphasize the benefits, rather than the evaluative aspects, of testing. Many students fear tests because they fear evaluation of their performance. Thus, if you promote their test-taking as a way to "help you help them" an attitude of cooperation may be enhanced.

3. Students often need reassurance that they are not expected to know answers to all the questions on a test and can do well even if they find certain questions difficult.

Office location: 3833 N. Meridian St., Indianapolis

4. Many students hinder their test performance by ruminating on a few difficult questions at the expense of other questions they could more easily answer. Encourage students to thoughtfully attempt difficult questions, but spend no more than one minute on any question.

5. Ensure that most students understand the instructions before beginning the test. If a few students do not understand a large portion of the instructions, it is likely that they are not listening effectively. Ask these students to clear all other thoughts and listen carefully as you read the instructions again, slowly. If a student still does not understand the task after a second reading, then explain that portion of the instruction privately to that student in language you believe he or she will understand. Note, however, that it is usually more effective to calm an anxious student than to paraphrase instructions, since an anxious student will seldom understand paraphrased instructions better than standard instructions.

6. Agitated behavior and frequent questioning of the teacher during testing are usually signs that the student is anxious. Use your knowledge of these students to calm them and reassure that they need only give the answers they believe are best, based on their understanding of the questions.

PROMOTING STUDENTS' PHYSICAL READINESS FOR TESTING

1. If possible, avoid testing on Monday, Friday or days immediately preceding or following vacations and special school events.

2. Administer tests in the morning before students have expended a great deal of their day's energy.

3. To avoid fatigue-related decrements in test performance, space testing periods over two mornings (i.e., reading tests on one morning, math tests on the following morning).

4. Avoid testing immediately after students have engaged in strenuous physical activity.

5. It is well known that students tend to perform better on tests when they are well rested and fed. Parents should be encouraged to ensure their children get a full nights sleep and eat breakfast prior to taking the test. When the latter is not possible, teachers may wish to arrange for their students to eat or drink something (e.g., piece of fruit, milk) in class before testing.

PROMOTING AN EFFECTIVE TEST-TAKING ENVIRONMENT

1. Become familiar with the test materials, particularly the instructions, prior to the test date. If you are familiar with the materials and have them organized for quick use, delays, a major source of tension/disruption in the room will be minimized.

2. There are several sources of distraction in classrooms which commonly interfere with testing activities. These distractors, along with methods for eliminating them, are described below:

   a) ringing telephones and end-of-period bells (disable all bells and buzzers audible in the testing room).
   b) noise, visual activity in hallways and outdoor areas (close doors, windows and curtains; limit use of hallway outside testing room).
   c) student movement during test to sharpen pencils, approach teacher, etc. (keep extra pencils on hand, go to students when they have questions).

3. Remove or cover materials in the room (e.g., wall hangings, maps, posters, globes, art objects) which might distract students attention or provide clues to correct answers on certain questions.

4. Seat students far enough apart from one another to enhance privacy. Adequate spacing is the most effective method for discouraging copying. However, an equally important purpose is to give students a greater feeling of privacy, particularly useful for anxious children.

ADDITIONAL SUGGESTIONS FOR THE IBCS WRITING TEST

There are two sections on the writing test. One section contains objective questions, while the other section contains two prompts designed to elicit handwritten responses. The testing suggestions in this paper apply to both sections of the writing test. However, the tips described below are directed to the handwritten section and are derived from the experiences of other states using a similar type of test.

1. It is critical that you do not provide any structuring of students' writing, beyond that given in the instruction. "Additional structuring" includes:

   a) providing students with a topic on which to write or recommending the content of their responses to the prompts.
   b) providing students with standard opening/closing sentences.
   c) providing an outline for the form of the responses.
   d) any other structuring which causes students to alter the content or form they might have used on their own.

Each of these structuring techniques has been found to consistently and substantially lower students' performance.

2. Reassure students that they are expected only to write a response than answers the questions communicated by the prompt, that there are no right or wrong answers and that they need only do their best to help you help them.

Sample Indiana Primary Trait Scoring Guide

Descriptive Paper

Grade 3

4 This paper has an interesting topic or "beginning" sentence. The writer uses descriptive words and phrases. Word choices are frequently imaginative. The writer attempts to be expressive, to bring to life a memory, an experience, or an impression. Ideas are presented in a sequential way; there is a definite sense of continuity. There is a clear sense that the writer addresses audience in an appropriate way.

3 This paper has an interesting topic or "beginning" sentence, but it is not as unified or well-organized as a 4 paper. The writer attempts to use descriptive words and phrases, but they are not as creative or imaginative as those found in a 4 paper. There is a clear sense that the writer addresses the audience in an appropriate way.

2 This paper has a confused or undirected focus. Word choices are weak or imprecise. There is little, if any, sense of continuity. A 2 paper is usually more like a skeletal listing of facts, events, and/or ideas, than a well-developed description. There is little, if any, sense of audience.

1 This paper cannot be followed. It may be too brief to be understood. Random word choice and faulty sentence construction obscure the writer's intentions. There is no sense of audience.

0 This will be a blank paper.

A This will be a totally illegible paper.

B This will be a paper which addresses a completely different topic.

DUE MAY 18, 1985

QUESTIONS REGARDING THIS REPORT
SHOULD BE DIRECTED TO 317/927-0213

HAROLD H. NEGLEY, SUPERINTENDENT
INDIANA DEPARTMENT OF EDUCATION

COMPLETE THIS FORM. RETAIN A COPY FOR YOUR RECORDS AND RETURN THIS COPY TO DIVISION OF RESEARCH AND ASSESSMENT, ROOM 229, STATE HOUSE, INDIANAPOLIS, INDIANA 46204.

COMPETENCY TESTING AND REMEDIATION CLAIM FORM FOR REIMBURSEMENT OF FUNDS

SECTION I IDENTIFICATION

(1) SCHOOL CORPORATION

(2) SCHOOL CORP. NUMBER

(3) CORPORATION ADDRESS

(4) SCHOOL YEAR

(5) COUNTY NUMBER

SECTION II REIMBURSEMENT INFORMATION

(1) ENTER NUMBER IN GRADE THREE WHO SCORED BELOW THE STATE STANDARD. (DO NOT INCLUDE STUDENTS WHO ARE ELIGIBLE TO RECEIVE BASIC SKILLS INSTRUCTION FROM A SPECIAL EDUCATION TEACHER UNDER IC 20-1-6). ____________(1)

(2) ENTER NUMBER FROM 1 ABOVE WHOM YOU PLAN TO REPLACE (FOR REASONS OF CLASSROOM PERFORMANCE AND TEACHER OBSERVATION - HEA 1202, CH 9 SECTION 1, F) WITH OTHER STUDENTS. ____________(2)

(3) ENTER NUMBER FROM 1 ABOVE WHO WILL RECEIVE REMEDIATION IN SUMMER, 1985. ____________(3)

(4) ENTER NUMBER FROM 1 ABOVE WHO WILL RECEIVE REMEDIATION IN FALL, 1985 BECAUSE __________
____ ____________(4)

(5) ENTER TOTAL OF (3) AND (4). ____________(5)

(6) MULTIPLY THE TOTAL IN (5) BY $, AND ENTER. ____________(6)

(7) SUGGESTED RECEIPT ACCOUNT -- 3199.

(8) SUGGESTED EXPENDITURE ACCOUNT--11100 AND 11900. OBJECT CODES 110-190.

SECTION III AUTHORIZATION

(1) THE UNDERSIGNED CERTIFIES THAT THIS REPORT IS TRUE AND ACCURATE, AND THAT FUNDS RECEIVED UNDER HEA 1202 WILL BE USED TO CARRY OUT THE INTENT OF LEGISLATION.

(2) SUPERINTENDENT'S NAME

(3) APPLICATION DATE

(4) SUPERINTENDENT'S SIGNATURE

(5) TELEPHONE NUMBER

SECTION IV APPROVAL

(1) STATE BOARD OF EDUCATION

(2) DATE

(OVER)

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SECTION V PROGRAM DESCRIPTION

THIS SIDE OF THE CLAIM FORM IS DEVOTED TO PROGRAM DESCRIPTION. ITS COMPLETION SIGNALS THE NATURE OF REMEDIATION PLANNED WITH FUNDS PROVIDED.

(1) AMOUNT ANTICIPATED FROM LINE 6, SECTION II $__________

(2) HOW MUCH OF LINE 1 WILL PAY PROFESSIONAL TEACHER SALARIES? __________

(3) HOW MANY TEACHERS, IN FULL TIME EQUIVALENCE? __________

(4) SUBTRACT LINE 2 FROM LINE 1. __________

(5) WHAT WILL LINE 4 PAY FOR? FILL IN N/A IF NOT APPLICABLE. __________

(6) HOW MANY TOTAL HOURS OF REMEDIATION ARE PLANNED FOR STUDENTS SELECTED? __________

(7) IF PLANNED FOR THE SUMMER, HOW MANY WEEKS? __________
HOW MANY DAYS PER WEEK? __________
HOW MANY HOURS PER DAY? __________

(8) IF PLANNED FOR FALL, HOW MANY WEEKS? __________
HOW MANY DAYS PER WEEK? __________
HOW MANY HOURS PER DAY? __________

(9) PLEASE INDICATE WHICH OF THE FOLLOWING PLANS WILL BE USED TO PROVIDE REMEDIATION, OR INDICATE IF OTHER PLANS ARE TO BE USED (REFER TO THE COMPETENCY TESTING AND REMEDIATION PROGRAM MANUAL, CHAPTER V, FOR A DESCRIPTION OF THE PLANS BELOW). CHECK ALL THAT APPLY.

______ PLAN 1 DESIGN A NEW REMEDIAL PROGRAM

______ PLAN 2 COMBINE REMEDIATION PROGRAM WITH OTHER SPECIAL OR SUMMER SCHOOL PROGRAMS

______ PLAN 3 USE AVAILABLE READING, LANGUAGE ARTS AND MATHEMATICS SPECIALISTS

______ PLAN 4 REMEDIATE WITHIN REGULAR CLASSROOM WITH REGULAR CLASSROOM TEACHER
    ______ PLAN 4, USING TUTORS
    ______ PLAN 4, USING AIDES OR VOLUNTEERS

______ PLAN 5 USE COMPUTER-ASSISTED INSTRUCTION

______ OTHER PLAN

(10) IN THE SPACE BELOW, PLEASE PROVIDE A BRIEF NARRATIVE ON YOUR REMEDIATION PLAN. INCLUDE IN THIS NARRATIVE YOUR PLANS FOR SELECTING STUDENTS FOR REMEDIATION.

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Characteristics of Effective Instruction: Summary of Recent Research Findings

Dr. Floyd F. Robison
Division of Research and Assessment
Department of Education

The purpose of this brief report is to present a summary profile of an effective remedial instruction program, based on research findings concerning methods associated with increased student achievement. This profile is discussed in three areas: a) modes of instruction; b) characteristics of the instructional program; and c) characteristics of instructional materials.

Modes of instruction

According to research findings reviewed by Benjamin Bloom and his associates (1984) tutoring constitutes the most effective mode of instruction for students who perform poorly under conventional classroom approaches. Tutoring involves one to three students learning a subject matter from one teacher. During the course of instruction, students are periodically tested to determine their progress toward specific learning objectives. Test results are used to provide feedback and corrective instruction. Following corrective instruction, students are retested to determine the degree which course objectives have been mastered.

When tutoring is not feasible for economic or other reasons, mastery-based instruction in a classroom setting has also been found to promote substantial gains in achievement. Generally, the mastery mode of instruction is an extension of tutoring to larger groups of students working with one teacher. As with tutoring, students' progress toward well-defined learning objectives is regularly assessed for the purposes of feedback and additional instruction in areas of insufficient mastery. Following the additional instruction, students are retested to determine subsequent mastery level. This process of testing, feedback, remediation and retesting is repeated until most students have mastered each objective. In his review, Bloom (1984) concluded that gains in student learning are greatest when mastery instruction and tutoring are combined in the same course.

Characteristics of effective instruction

The following characteristics have been associated with effective mastery-based instructional programs (For more extensive reviews of research related to these characteristics, see Black and Burns, 1976; Bloom, 1984; Gagne and Briggs, 1979; Lysakowski and Walberg, 1981; Luiten, Ames and Ackerson, 1980):.

1. Pupil-teacher ratios are as low as feasible. While no optimal ratio has been established, evidence gathered by Gene Glass suggests that student time on task, quality of feedback and equal treatment of students by teachers, is enhanced as class size is reduced.

2. The subject matter is broken down into a series of learning objectives, outcomes which can be concretely described and measured. Criterion levels of performance are established to determine mastery of each objective.

3. Each student's level of competence in the subject matter, along with specific knowledge or skill deficiencies, is assessed at the outset of the course. Results of this initial assessment are used to select materials and plan an instructional strategy appropriate to students' needs and initial levels of competence.

4. Initial class meetings are devoted to helping students learn any prerequisite knowledge and skills related to the subject matter in which they are found to be deficient on initial assessment.

5. Instruction incorporates periodic evaluation and immediate feedback to students regarding their progress toward objectives. During instructional sequences related to each objective, students are frequently tested to assess level of mastery. Test results are used to provide feedback and additional instruction in which mastery has not been achieved. Students are then retested. This process is repeated until all students have achieved criterion mastery level for the objective (or it is determined that particular students have reached the highest level of mastery they can achieve).

6. Testing is done for the primary purpose of assessing progress and diagnosing difficulties, rather than assigning formal grades. A formal course grade may be assigned at the end of the course to indicate mastery level of all objectives. While it may be appropriate to assign grades for performance on individual objectives, these grades are assessed after the final test for each objective.

7. Positive student performance is consistently reinforced by the teacher and, when possible, through the instructional materials.

8. Students are helped to apply the subject matter to situations and problems in everyday life. Applying concepts to life situations has been found to improve learning by making concepts more meaningful to students and promoting more positive attitudes toward the subject.

9. In addition to conveying the subject matter, instruction helps students learn and use problem-solving skills.

10. Students are regularly given homework derived from course material related to each course objective. Effective homework allows practice with the course material, promotes development of problem-solving skills and serves as an additional means of providing feedback to students. Also, homework may be used to help students apply course material to concrete situations in daily life (Paschal, Weinstein and Walberg, 1984).

11. Mutual support and helping among students in the class is encouraged. It has been observed that students can help one another learn difficult material and increase positive learning attitudes.

12. Direct parental involvement is promoted. Parents are frequently informed about what is being taught and their children's progress toward objectives. Parents are encouraged to participate in the instructional program through home tutoring, encouraging effective study habits and fostering positive attitudes about the subject and learning in general.

Characteristics of effective instructional materials

To date, no single type of instructional materials or media have been found to be most effective for promoting learning in a subject by all students. However, recent research has identified some general features of useful materials and their use in remedial instructional programs (For more extensive information related to these characteristics, see Bloom, 1984; Briggs, 1968; Gagne and Briggs, 1979):

1. Selection of materials is based on specific needs of students in the class, determined through initial competency assessment (see point 3 above). Some students tend to respond better to particular types of materials (e.g., books, films, guest speakers, games, structured activities). As a general guide, students' attention and interest are best obtained when a variety of materials and media (e.g., visual, auditory, tactile) are used.

2. Several writers have observed that less able students learn more readily when they are able to acquire direct experience with the subject matter ("learning by doing") via the instructional materials. For example, a remedial reading course might engage students in role-playing stories. Students in a remedial mathematics course might actually manipulate objects to practice basic arithmetic operations.

3. Materials provide concrete examples of concepts to be mastered.

4. Printed materials present a topic by beginning with an overview of new material to be learned, and its relationship to

previously learned material (David Ausubel refers to this overview as an "advanced organizer").

5. Materials provide frequent opportunities for students to assess their own progress and challenge their thinking, such as questions or structured exercises located throughout the material.

6. The material periodically provides for reinforcement of students' progress. Computerized learning programs are excellent examples of instructional materials with "built-in" reinforcements. Other examples include teaching machines, games and similar types of equipment.

In summary, an effective remedial instruction program may incorporate a number of characteristics including the following:

1. mastery-based instruction, coupled with tutoring when possible;
2. lower pupil-teacher ratios;
3. instruction and assessment linked to specific learning objectives;
4. instruction which is structured, yet sufficiently flexible to allow appropriate pacing of students;
5. initial assessment of students to diagnose weaknesses in prerequisite skills and determine initial competency levels;
6. initial instruction in prerequisite knowledge and skills;
7. regular, specific and immediate feedback;
8. teaching students to use both subject-related and general problem solving skills;
9. encouraging students to apply concepts to everyday life events and problems;
10. regular assignment of homework tasks allowing practice using the course material;
11. establishing mutually supportive helping relationships among students;
12. regular, consistent reinforcement of students' progress;
13. use of a variety of instructional materials and materials which allow students to learn by doing;

14. use of materials which allow students to monitor their progress and which reinforce positive performance;

15. materials which provide overviews of material to be learned and relate new material to previously learned material.

References

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Dale, E.A. (1969). Audio-visual methods in teaching (3rd ed). New York: Holt, Rinehart and Winston

Gagne, R. Rm., and Briggs, L. J. (1979). Principles of instructional design (2nd ed). New York: Holt, Rinehart and Winston.

Lysakowski, R. S., and Walberg, H. J. (1981). Classroom reinforcement: A quantitative synthesis. Journal of Educational Research, 75, 69-77.

Luiten, J., Ames, W., and Ackerson, G. (1980). A meta-analysis of the effects of advanced organizers on learning and retention. American Educational Research Journal, 17, 211-218.

Paschal, R., Weinstein, T., and Walberg, H.J. (in press). Effects of homework: A quantitative analysis. Journal of Educational Research.

Second Regular Session 103rd General Assembly

PRINTING CODE: When a new section, chapter, article, or title is being added to the Indiana Code or the Indiana Constitution, the word NEW will appear in that style type in the introductory clause, and the text of the new provision will appear in roman type. When an existing statute or section of the Indiana Constitution is being amended, the text of the existing provision will appear in roman type, additions will appear in this style type, and deletions will appear in ~~this style type~~. A SECTION that does not affect the Indiana Code or the Indiana Constitution will appear in roman type.

HOUSE ENROLLED ACT No. 1202

AN ACT to amend the Indiana Code concerning education.

Be it enacted by the General Assembly of the State of Indiana:

SECTION 1. IC 21-3-9 is added to the Indiana Code as a NEW chapter to read as follows:

Chapter 9. Basic Competency Skills Testing and Remediation.

Sec. 1. (a) The governing body of a school corporation shall develop and implement a program of basic competency skills remediation for students who need remedial work in basic competency skills.

(b) The state board of education shall prescribe:

(1) guidelines and criteria for remediation programs developed under this section;

(2) the grade levels at which remediation is to be offered;

(3) the uniform basic competency skills test and minimum acceptable test scores;

(4) the grade levels at which basic competency skills tests are to be administered; and

(5) a per pupil dollar amount for funding each type of testing and remediation program approved under this section.

(c) The governing body of each school corporation shall make an initial determination of the amount of the distribution to be made to that school corporation under this section by performing the following computation:

(1) Determine the total number of students in the school corporation:

  (A) who are in the grades in which remediation is to be provided under this section; and

  (B) whose scores on the basic competency skills tests are

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below the minimum acceptable scores prescribed by the state board of education.

(2) Determine the total number of students in the school corporation:

(A) who are in the grades in which remediation is to be provided under this section; and

(B) who are eligible to receive their basic skills instruction from a special education teacher under IC 20-1-6.

(3) Subtract the number determined under subdivision (2) from the number determined under subdivision (1).

(4) Multiply the remainder obtained under subdivision (3) by the amount prescribed under subsection (b)(5).

(d) The governing body of each school corporation shall submit the results of its computation under subsection (c) to the state board of education. The state board of education shall verify these computations before funds are distributed to the school corporation by the auditor of state.

(e) The total amount of distributions to school corporations under this section may not exceed the amount appropriated by the general assembly for remediation and testing programs under this section.

(f) A school corporation shall:

(1) participate in the basic competency skills testing program developed by the state board of education under subsection (b);

(2) obtain approval of its remediation program from the state board of education; and

(3) include in its remediation program a mechanism for selecting the students who will receive remediation under the program.

The mechanism for selecting students who will receive remediation must use the results of the basic competency skills test, but, with the approval of the state board of education, may include other evaluation techniques such as classroom performance and teacher observation. The number of students selected shall not increase the distribution under this section.

(g) School corporations shall use funds received under this section only for the implementation of testing and remediation programs approved by the state board of education.

(h) Before October 1 of each year, the superintendent of each school corporation that receives funds under this section shall certify that those funds have been used for the purposes provided in this section. This certification must be made in a written statement to the state board of education.

(i) The results of the tests required by this section shall be made available only:

(1) to the student and the student's parent or guardian; or

(2) when required for use for purposes of this section.

Sec. 2. (a) In addition to the testing requirements of section 1 of this chapter, each school corporation shall conduct a testing program of at least four (4) grade levels as part of a program of evaluation of each student's learning progress.

(b) The scores of an individual student on tests required by this section shall be made available only to that student and the parent or guardian of that student.

(c) The cumulative results of tests required by this section shall be compiled by each school corporation in a manner that will permit evaluation of learning progress within the school corporation. The school corporation shall make the compilation of test results available for public inspection, and may issue an interpretation of the test results together with the compilation.

SECTION 2. (a) The initial basic competency skills testing under IC 21-3-9-1, as added by SECTION 1 of this act, shall be administered to students in grade level 3 before March 1, 1985. Remediation programs for the students selected from that grade level shall be provided in a summer school program of at least four (4) weeks, which need not be consecutive, and shall be completed before the beginning of the fall semester of 1985. However, the state board of education, upon request of a school corporation, may approve the substitution of an equivalent program of remediation that will be provided in that school corporation during the fall semester of 1985.

(b) A student selected for the summer school remediation program shall be retested upon completion of the program, and the school corporation shall then determine whether the student should advance to grade level 4 based on the following considerations:

(1) The results of the retest.

(2) The student's attendance record in the program.

(3) The recommendation of the student's teacher in the program.

(4) The recommendation of the student's teacher in grade level 3.

(c) This SECTION expires July 1, 1986.

SECTION 3. (a) On or before April 15, 1985, the state board of education shall prescribe a total of two (2) grade levels for which testing and remediation under IC 21-3-9-1, as added by SECTION 1 of this act, shall be required. Remediation required under this subsection shall be required in each school corporation:

(1) in the 1985-1986 school year; or
(2) in a summer school program in the summer of 1986, unless permission to substitute an equivalent program of remediation during the fall semester of 1986 is requested by the school corporation and approved by the state board of education.

(b) On or before January 1, 1986, the state board of education shall prescribe a total of three (3) grade levels for which testing and remediation under IC 21-3-9-1, as added by SECTION 1 of this act, shall be required. Remediation required under this subsection shall be required in each school corporation:

(1) in the 1986-1987 school year; or
(2) in a summer school program in the summer of 1987, unless permission to substitute an equivalent program of remediation during the fall semester of 1987 is requested by the school corporation and approved by the state board of education;

and in succeeding years.

(c) This SECTION expires February 1, 1986.

SECTION 4. Because an emergency exists, this act takes effect upon passage.

____
President of Senate

____
Speaker of the House of Representatives

Approved: ______________________________

____
Governor of the State of Indiana

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APPENDIX C

TO

REQUEST FOR PROPOSALS

FOR

BASIC SKILLS COMPETENCY TESTS AND SCORING SERVICES

AND

RELATED SERVICES TO SUPPORT H.E.A. 1202

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS

Basic Intent

The intent of these specifications is to provide structure, yet enough flexibility, for prospective contractors (bidders) to propose an exemplary basic skills testing program. The Department of Public Instruction invites bidders to draw on their expertise, and experience, and wisdom in order to meet the intent of H.E.A. 1202; and at the same time, consider the needs of various users of the intended test information. Therefore, the Department wants each bidder to propose the level of specificity necessary to demonstrate both the rationale and effort needed to complete basic-skills testing over the next three years.

Content

The Indiana Statewide Basic Skills Competency Tests will tap a restricted domain in reading, mathematics, and writing for Grades 3, 6 and 8. Since the major purpose of the tests is to assist Indiana's educators with the implementation of remediation programs, it is vitally important for the tests to include items that reflect learning skills in school both prior to and during the designated grades. The Indiana State Board of Education has decided that the tests should include coverage of areas reported by the National Assessment of Educational Progress (NAEP), which found that students lack skills in critical thinking, problem solving, and persuasive writing.

In reading, the tests should cover major reading comprehension skills that can be measured from the administration of reading passages and corresponding multiple-choice questions. In mathematics, the tests should cover computation, concepts, and problem solving skills that can be measured from multiple-choice test questions. The writing test should consist of actual writing exercises requiring each student to produce original writing samples; and also, measure the students' skills in usage of grammar, punctuation, capitalization, and spelling.

Reading Grade 3. The basic skills reading competency test for Grade 3 should contain passages and corresponding multiple-choice test questions that represent comprehension skills usually expected of students in grades one to three. The comprehension test will contain seventy (70) test questions (items), with fourteen (14) reading passages and five (5) items devoted to each passage. It is also expected that the test will cover the following major skill areas with designated subskills:

1. Meaning vocabulary (15 items)

    a. Context clues ------------------ 5 items
    b. Multiple meanings -------------- 5 items
    c. Synonyms ----------------------- 5 items

2. Literal Comprehension (25 items)

    a. Main ideas --------------------- 5 items
    b. Comparison and contrast -------- 5 items

    c. Cause and effect --------------- 5 items
    d. Details ----------------------- 5 items
    e. Sequence ---------------------- 5 items

3. Inferential Comprehension (20 items)

    a. Classifying ------------------- 5 items
    b. Predicting outcomes ------------ 5 items
    c. Comparison and contrast -------- 5 items
    d. Character traits --------------- 5 items

4. Critical reading/thinking (10 items)

    a. Reality *vs.* fantasy ------------ 5 items
    b. Fact *vs.* opinion --------------- 5 items

Reading Grades 6 and 8. The basic competency reading tests for Grades 6 and 8 should contain passages and corresponding multiple-choice test questions that represent *comprehension skills usually expected of students in the designated grades.* Each test will contain seventy-five (75) test questions (items), with fifteen (15) reading passages and five (5) items devoted to each passage. Each test will cover the following major skill areas with designated subskills:

1. Meaning Vocabulary (15 items)

    a. Context clues ------------------ 5 items
    b. Multiple meanings -------------- 5 items
    c. Synonyms ---------------------- 5 items

2. Literal Comprehension (25 items)

    a. Main ideas -------------------- 5 items
    b. Comparison and contrast -------- 5 items
    c. Details ----------------------- 5 items
    d. Cause/effect ------------------ 5 items
    e. Sequence ---------------------- 5 items

3. Inferential Comprehension (20 items)

    a. Classifying ------------------- 5 items
    b. Predicting outcomes ------------ 5 items
    c. Character traits --------------- 5 items
    d. Comparison and contrast ------- 5 items

4. Critical Reading/Thinking (15 items)

    a. Fact *vs.* opinion -------------- 5 items
    b. Literary technique ------------- 5 items
    c. Appropriateness --------------- 5 items

Reading Passages. The passages selected for the tests should represent interesting and culturally relevant fictional and factual materials. The readability of the passages should range progressively throughout the tests from two to three grade levels below the designated grade to at least one grade level above.

Mathematics Grade 3. The basic skills competency mathematics test for Grade 3 should cover computation, concepts, and problem-solving skills usually expected of students in grades one through three and at least one grade above. The test will consist of 45 multiple-choice test questions (items) devoted to the following skill and subskills areas.

1. Computation with Whole Numbers (20 items)
    a. Addition (5)
    b. Subtraction (5)
    c. Multiplication (5)
    d. Division (5)

	2. Concepts (15 items)	3. Problem Solving (10 items)
Numbers/Numeration	3	2
Geometry	3	2
Measurement	3	2
Number Sentences	3	2
Graphs/Charts	3	2

Mathematics Grade 6. The basic skills competency mathematics tests for Grade 6 should cover computation, concepts and problem-solving skills usually expected of students in the designated grades and from two to three grades below the designated grades and at least one grade above. Each test will contain 55 multiple-choice test questions (items) devoted to the following skill and subskill areas:

1. Computation (15 items)
    a. Whole numbers/integers (5) - multiplication & division
    b. Fractions (5) - addition & subtraction
    c. Decimals (5) - addition & subtraction

	2. Concepts (24 items)	3. Problem Solving (16 items)
Number Theory/Numeration	3	2
Number Sentences	3	2
Geometry	3	2
Measurement	3	2
Graphs/Charts	3	2
Percents/Money	3	2
Ratios	3	2
Probability/Statistics	3	2

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Mathematics Grade 8. The basic skills competency mathematics tests for Grade 8 should cover computation, concepts and problem-solving skills usually expected of students in the designated grades and from two to three grades below the designated grades and at least one grade above. Each test will contain 55 multiple-choice test questions (items) devoted to the following skill and subskill areas:

1. Computation (15 items)
    - a. Whole numbers/integers (5) - multiplication & division
    - b. Fractions (5) - multiplication & division
    - c. Decimals (5) - multiplication & division

	2. Concepts (24 items)	3. Problem Solving (16 items)
Number Theory/Numeration	3	2
Number Sentences	3	2
Geometry	3	2
Measurement	3	2
Graphs/Charts	3	2
Percents/Money	3	2
Ratios	3	2
Probability/Statistics	3	2

Writing Grades 3, 6 and 8. Writing is to be tested in Grades 3, 6 and 8 beginning in the 1985-86 school year. The purpose of the basic skills competency writing tests is to obtain an overall assessment of writing skills and to provide educators with helpful diagnostic information. Therefore, the State Board of Education has decided to require a direct method of assessing writing skills. The tests should take the form of a set of directions that invites the students to respond to a question, state an opinion, write a letter, explain a process, or recount an event. The Grade 8 test will require elements of persuasive writing skills. The time allotted for the writing test should allow the student to organize ideas, write, and edit. Bidders are asked to include in their writing test a section to test students' skills as follows: spelling, grammar, punctuation, capitalization...

Testing Time

The total time for any test should not exceed 80 minutes. Thus, on the average, students will have about one minute to devote their attention to each item. In addition, for reading and mathematics in Grade 3, it should be possible for each test to be broken down into two or three shorter testing segments such that actual testing time for students does not exceed 30 minutes for any segment.

Difficulty Level

Test results from each test for each grade level will be combined quantitatively to form a composite score from which the Indiana State

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Board of Education will determine funding for the remediation programs. Since funds for remediation are expected to support up to 15 percent of the total statewide enrollments for each grade, it will be necessary to use the 15th statewide percentile on the composite score as the cutoff score for funding. The decision to include writing scores as part of the composite in Grades 3, 6 and 8 will be based partly on the results of pilot testing; however, the composite score will cover at a minimum both reading and mathematics.

It is extremly important for composite scores to reflect scores considerably above chance level. In fact, given the content of the tests and their desired diagnostic properties, it is desirable for the 15th statewide percentile to represent approximately 50 percent of the items correct on each test (see Desired Item and Test Characteristics).

Test Construction and Calibration

It is preferred that the test construction process for reading and mathematics utilize latent-trait methodology as its primary mode of empirical development. It is anticipated that the one-parameter, or Rasch, model will suffice; however, the State Board of Education is open to consideration of other models that can be shown to provide additional benefits without any major loss of other desired test properties. Bidders who wish to use classical or traditional test-development procedures, p-values, may choose to do so. It is extremely important, however, for bidders to specify how test development and scaling will proceed. It is also important for the bidders to specify the process for identifying and leveling the appropriate writing exercises for Grades 6 and 8.

Desired Item and Test Characteristics

In order to obtain desirable test characteristics and sufficient reliability around the cut-score of the 15th percentile, it is necessary that students at the 15th percentile on the average answer correctly between 50% and 55% of the total number of items on each test.

Classical testing practice would require creation and/or selection of test items that have high p-values. According to latent-trait or item-response theory, the average item difficulty for all items will be near the 15th percentile ability level of all students taking the exam. If the third-grade ability (θ) continuum (axis) were graduated in percentiles for the state, the item characteristic curve for a typical, average item would be portrayed as below:

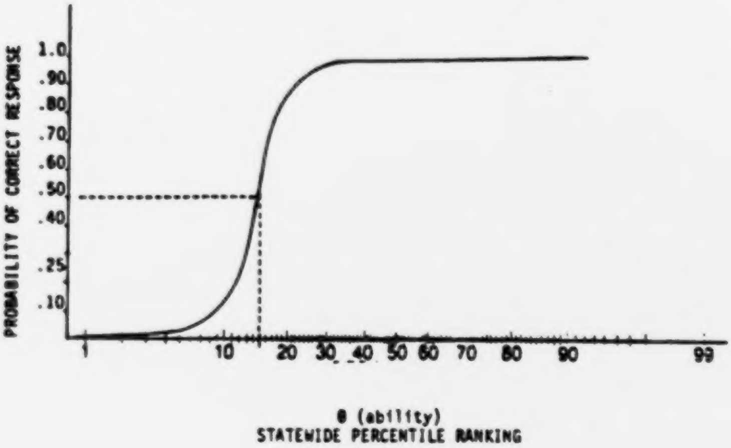

Figure 1

Of course, with a sufficient number of items in each subskill area, the item characteristic curves may fall on one side or the other of the 15th percentile; however, we would expect that the item difficulty levels will generally "cluster" around this ability level. Selecting test items around this difficulty level will maximize the information (and reliability) of the test at the cut-score point. Therefore, another way to look at the desired item characteristic for the average third-grader can be depicted by the following item characteristic curve:

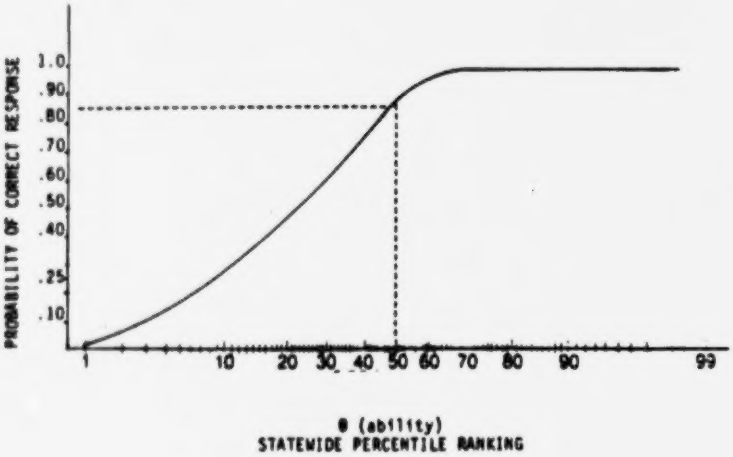

Figure 2

Note that the student of average ability has about an .85 probability of answering the average item correctly.

National Norms

It is highly desirable for the tests to have the feature of national norms from which to report test results. While a typical standardized (norm-referenced) test would be deemed inappropriate for Indiana's purposes, educators and interested parties throughout the State will want some type of comparison of state results to those from a nationally representative norm group in the designated grades. Acceptable methods for obtaining these norms include classical and contemporary equating methods; however, the Department of Public Instruction favors those capitalizing on latent-trait methodology.

Objective-Referenced Diagnostics

The basic elements of the intent of Indiana's basic competency tests are fivefold:

1. to provide the basis for statewide funding of remediation programs;

2. to provide school corporations a partial basis for selecting students into the remediation programs;

3. to provide diagnostic information helpful to those implementing the remediation programs;

4. to retest those students participating in the remediation programs; and,

5. to provide information helpful to school corporations as they educate all students in the grades designated for testing.

The second, third and fifth elements in particular call for test results that provide appropriate diagnostic information--information that can help educators decide who and what needs remediation.

As is illustrated in the Detailed Content Specifications, the reading and mathematics tests are broken down into major skill and subskill areas. Each subskill area is to be represented by five test questions (items); the difficulty of these questions should range moderately, and be related to the grade levels at which students usually acquire a specific skill (e.g., most students should succeed on an item measuring content taught two years prior to testing, while fewer should succeed at an item measuring a recently taught skill.) With sufficient ranges of difficulty, it should be possible for the test results to reflect relative status for each test, major skill area, and subskill area, hence providing three levels of diagnostic test information.

For writing, there will be two levels of test results--total score and scores resulting from the more detailed or diagnostic scoring by writing reviewers. To further the diagnostic process, the State Board of Education also prefers that the actual writing sample be returned to the student's district, so that the district may then share the marked writing sample with teachers and students.

Scoring and Reporting

Depending on the type of scaling and on decisions regarding the quantitative development of composite scores, the State will require a Funding Report that lists corporations with the number of students in each corporation that score at or below the 15th statewide percentile on the composite score. In addition, the State desires various other reports and scores from the basic skills competency tests. Table I lists the reports, scores, and intended recipients of the reports.

For reading and mathematics, useful and appropriate objective-referenced and normative scoring will be needed for each report. Both statewide and national norms will be used where possible and appropriate. Averaging and statistical treatments will depend on the type of scaling that is chosen. The bidders should adequately describe the methods for averaging and statistical analysis related to their proposed scales, and include explanation of how they propose to develop composite scores.

For writing, the common scoring approaches for direct assessment include holistic, analytic, and primary trait. Each provides different types of information about the writing samples scored. The bidders should present a rationale for an approach that both provides a total score and appropriate diagnostic information. The State Board of Education anticipates that each student's writing sample should receive a total score and at least four subskill scores. The Board also wants the writing samples to be returned to the student's district. As with reading and mathematics, statewide and national norms are needed. The bidders are expected to delineate the methods for scaling, averaging and statistical analysis, and to include how they would propose writing as part of the composite score.

Pilot Tests

Pilot testing will occur during late September prior to the first test administration of each test (September of 1984 for Grade-3 tests). The bidders are invited to provide a rationale for choosing a grade in which to conduct the pilot. For example, the Grade-3 tests could be pilot tested on either third graders or fourth graders. However, late September third graders have little experience as third graders. Late-September fourth graders have not only their full experience

TABLE I

REPORTS, SCORES AND RECIPIENTS OF REPORTS UNDER THE BASIC COMPETENCY TESTING PROGRAM

REPORT	SCORES	RECIPIENTS OF REPORT*
Funding Report	Number of students in each corporation at or below the 15th statewide percentile on the composite score. Each corporation will need its report for claiming funds.**	DPI Corporation
Test and Item Analysis	Statistical characteristics for each test, major skill area, subskill area, and item, including error of measurement.	DPI
Summary Statistics	Mean, standard deviation, frequency distribution, cumulative frequency distribution, and statewide percentile for each total and composite score.	DPI Corporation
Group Diagnostic Report	Average scores by test, major skill areas, subskill area and item.	DPI Corporation
Individual Diagnostic/Prescriptive Report	Scores by tests, major skill areas, subskill areas and item.	Corporation
Student List Report	Test scores and composite score.	Corporation
Test-Retest Group Report	Average test scores and average composite scores.	DPI Corporation

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*The bidder will be expected to provide Group Diagnostic and Test-Retest Group Reports according to groups defined on a numeric research grid to be included on the student response document.

** The State n-count (multiplied by .15) must be no fewer than the sum of all district n-counts of students below the 15th statewide percentile score.

as third graders, but greater maturation to boot. The dilemma, of course, arises in the need to pilot well in advance of statewide administration of the tests, before March 1, 1985. For 6th graders, the solution may lie in piloting 6th grade tests before March 1, 1985; and for 8th graders, March 1, 1986--one year in advance of statewide administration in both instances. The bidders are invited to consider these matters and propose a rational solution, especially regarding Grade 3.

The purposes for the pilot tests are threefold:

1. Verify item and test characteristics and/or form the basis for item and test revisions.
2. Try out testing, scoring, and reporting procedures.
3. Refine the instruments to discriminate best at the cutoff score for the remediation programs.

Up to 5% of the students (about 3400 for the Grade-3 pilot) will be selected for the pilot testing. Bidders should specify exactly how they propose to design the pilot tests, including specifics about sampling and analyses to meet the above-stated purposes. As a general rule, more items should be piloted than are expected in the final version of the tests.

Retesting

As was indicated earlier, the students selected for participation in the remediation programs will need to be retested following remediation; i.e., approximately 15% of the students statewide at each grade will be retested. The bidders should provide a rationale for how and when to conduct retesting that is consistent with the intent of H.E.A. 1202 and the needs of school corporations. The bidders should also realize that school corporations are permitted to operate their remediation programs either in the summer or the fall. Once the State knows the number of students to be remediated in each corporation, it will submit a blanket order to the contractor delineating the number of test booklets and/or answer sheets to be delivered to each school corporation.

Alternate Forms

Given that the contract is expected to extend over three years, and given that the students selected for remediation will need to be retested, bidders should propose a plan for the development and use of alternate forms for each subject area and grade.

Format of Test Booklets and Answer Documents

Bidders should consider the suitability of test-booklet and answer-document format for the grades being tested. Grade 3 tests should be in the form of machine-scorable booklets; whereas the tests for Grades 6 and 8 should use machine-scorable answer sheets that are separate from the test booklets. Test booklets should contain both reading and mathematics. Provisions for how to format writing tests in Grades 6 and 8, however, are left to the bidders to propose. See the main body of this RFP for discussions of accompanying manuals and supportive materials.

Item and Test Bias

As part of the item-selection process, including pilot testing, the bidders should indicate how they plan to study and control for cultural, racial/ethnic and sex bias among the items that make up the tests. The contractor will have to provide evidence from its study of bias.

State of INDIANA

Department of Public Instruction
Harold H. Negley, Superintendent
Room 229, State House • Indianapolis 46204
317/232-6610

Instructional Services for Research and Assessment
Room 229, State House
317/927-0213

M E M O R A N D U M

TO: All Superintendents

FROM: BS Bill Strange, Director

RE: Policy Position on Statewide Testing

DATE: March 16, 1984

The following policy was adopted by the Commission on General Education, State Board of Education, at its March 14, 1984 meeting in Evansville:

1. Statewide tests will complement and supplement local tests, and not supplant them.
2. Statewide tests will reflect results reported by national assessment (NAEP), which found that students lack critical thinking skills in mathematics problem-solving, reading comprehension (inferential), and writing (persuasive).
3. Statewide tests will reflect a limited domain of learning consisting of exit-type basic skills. The term "basic skills" includes higher-order, critical thinking skills.
4. The Commission's determination of minimal passing scores will be based on a quota-setting method that takes into account the resources for remediation.
5. Statewide tests will be objectives- or criterion-referenced in construction, rather than norm-referenced.
6. The Commission will delay consideration of a "challenge" standard proposed by the Department of Public Instruction until after the first year test results are in.

mjd

Office Location: 3833 N. Meridian St., Indianapolis

Tryout Participants: Third Grade Reading and Mathematics Subtest

1. Attica Consolidated School Corporation
   Attica
2. East Washington School Corporation
   Pekin
3. Fayette Community School Corporation
   Connersville
4. Fort Wayne Community Schools
   Fort Wayne
5. Franklin County Community School Corporation
   Brookville
6. Franklin Township School Corporation
   Lanesville
7. Frontier School Corporation
   Chalmers
8. Indianapolis Public Schools
   Indianapolis
9. Lawrenceburg Community Schools
   Lawrenceburg
10. Loogootee Community Schools
    Loogootee
11. MSD Decatur Township
    Indianapolis
12. MSD Mount Vernon
    Mount Vernon
13. Monroe Central School Corporation
    Parker
14. Pleasant Township Schools
    Valparaiso
15. Seymour Community Schools
    Seymour
16. School City of East Chicago
    East Chicago

17. School City of Hobart
Hobart

18. Salem Community Schools
Salem

19. South Adams Schools
Berne

20. South Madison Community Schools
Pendleton

21. West Lafayette Community Schools
West Lafayette

Tryout Participants: Sixth Grade Test

1. Blackford County Schools
   Hartford City
2. Brownstown School Corporation
   Brownstown
3. Center Grove Community School Corp.
   Greenwood
4. Clarksville Community Schools
   Clarksville
5. Evansville-Vanderburgh School Corporation
   Evansville
6. Franklin Township School Corporation
   Indianapolis
7. Gary Community Schools
   Gary
8. Hammond City Schools (Reading/Mathematics only)
   Hammond
9. Huntington County Schools
   Huntington
10. Lake Ridge Schools (Writing subtest only)
    Gary
11. MSD Martinsville
    Martinsville
12. North White Schools
    Monon
13. Pioneer Regional School Corporation
    Royal Center
14. Richmond Community Schools
    Richmond
15. Smith-Greene School Corporation
    Churubusco
16. Wa-Nee School Corporation
    Nappannee

Tryout Participants: Third Grade Writing Subtest

1. Eastbrook School Corporation
   Marion

2. Hobart Township Schools
   Hobart

3. Indianapolis Public Schools
   Indianapolis

4. Jennings County School Corporation
   North Vernon

5. Marion Community Schools
   Marion

6. Marion-Adams School Corporation
   Sheridan

7. Mississinewa Community Schools
   Gas City

8. New Prairie United School Corporation
   New Carlisle

9. Northeast School Corporation
   Hymera

10. North Knox Schools
    Bicknell

11. Northern Wells Community Schools
    Ossian

12. South Central Community School Corporation
    Union Mills

13. Valparaiso Community Schools
    Valparaiso

14. Vincennes Community Schools
    Vincennnes

15. Warrick County Schools
    Boonville

16. West Washington School Corporation
    Campbellsburg

Holistic and Primary Trait Scoring Systems

HOLISTIC SCORING

PURPOSE: Holistic scoring assesses the overall quality of a student's written product (e.g., short essay) against criterion products representing varying levels of quality at the student's grade level.

PROCEDURE AND SCORING: The student is given a PROMPT, a question designed to elicit a focused written response. The length and time allowed to write the response are generally left open-ended (Although imposition of length and/or time limits might be necessary for logistical reasons, experience of other states with writing tests indicates that imposition of rigid time limits tends to depress scores).

To score responses to a particular prompt, a set of criterion responses (called "key papers") is developed. Key papers represent variations of writing quality at the target grade level, as judged by recognized specialists in the field of writing. Generally, these key papers represent various levels of quality on several factors, such as writing style, organization, mechanics, relevance and organization (note that these factors are NOT separately scored). The number of quality levels established for scoring responses depends on the needs of the test user. In Indiana, a four level system (4 = highest quality, 1 = lowest quality) has been proposed.

Each response is scored by at least two trained readers, themselves writing specialists. Each reader examines the response and assigns it the numerical value of the key paper it is judged to match most closely in terms of quality. A response that is incoherent, illegible or totally unrelated to the prompt is assigned a score of "0." Readers score responses blindly, that is, each does not know the scores assigned by the other. If the resulting scores are the same, that score is assigned to the response. If the two scores are different, but on the same side of an established cutoff score, the average of the two scores is assigned. If the two scores fall on opposite sides of the cutoff score, the response is scored by a third reader and the three scores are compared. In this case, should the third reader's score match one of the first two scores, then that score is assigned. If all three scores are different, the readers meet to discuss the response and reach concensus regarding its score. However, the need for involvement of a third reader is rare if the scoring system is reliable.

OUTCOME: A single score is assigned to the response, reflecting its overall quality, with the highest score representing the highest quality. By examining the criteria used in evaluating the response and the content of the key papers, a teacher may determine the student's strengths and weaknesses in writing, diagnose specific deficiencies and carry out appropriate remedial instruction.

PRIMARY TRAIT SCORING

PURPOSE: The primary trait method assesses the student's ability to effectively address a particular audience or accomplish a particular purpose through a written product. This ability, which serves as the central criterion for evaluating the paper, is termed a "primary trait." In addition, the presence of other "secondary" traits may also be evaluated in the same paper. However, when multiple traits are evaluated in the same response, they are scored separately.

PROCEDURE AND SCORING: The student is asked to respond to a prompt designed to elicit the target primary trait (and any target secondary traits). As with the holistic method, students are allowed sufficient time to develop a complete response.

Responses are compared with a set of key papers representing different degrees to which the target primary and secondary traits are present. The scoring procedure is essentially the same as that used for holistic evaluation, in that responses are independently evaluated by two trained readers and assigned a single score for each target trait, according to the response's "best match" with a key paper.

OUTCOME: A single score is assigned to the response, based on the degree to which the trait is present, that is, how effectively the writer communicates to the audience or accomplishes the particular purpose of the response. By exmaining the content of the response against the key papers, a teacher may determine the student's strengths and weaknesses on the target trait/s and plan appropriate remedial instruction.